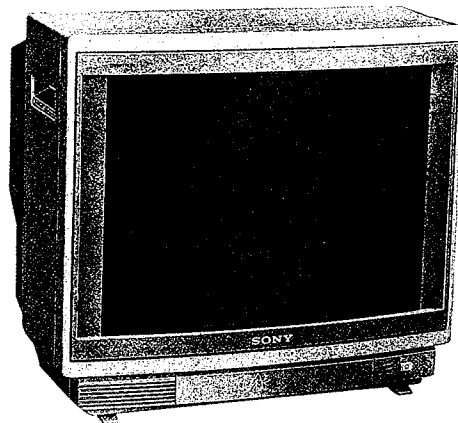


# GVM-2020

## SERVICE MANUAL

*US Model*  
*Canadian Model*  
Chassis No. SCC-C63B-A



### SPECIFICATIONS

<b>Color system</b>	NTSC system	<b>Inputs</b>	VIDEO IN (LINE A/LINE B): BNC connectors(2) composite video, 1Vp-p $\pm 6$ dB, sync negative, automatic termination at 75 ohms Y/C IN (LINE B): 4-pin, mini-DIN (1) Y(luminance signal): 1Vp-p, sync negative, 75-ohm termination switchable C (chrominance signal): 0.286 Vp-p (burst signal), 75-ohm termination switchable RGB A: D-sub 9-pin connector (1) Analog RGB: 0.7 Vp-p, 75 ohm terminated Digital RGB : TTL level RGB B: BNC connector (3) Analog RGB: 0.7 Vp-p, 75 ohm terminated HVD/HD/VD: BNC connector (2) composite sync: 1 Vp-p negative TTL level: negative and positive available, 0.3 Vp-p negative sync on green available AUDIO IN (LINE A/LINE B/RGB A/RGB B): phono jack (4) -5 dBs, high impedance CONTROL S: minijack (1) RGB A SELECT: minijack (1)
<b>Picture tube</b>	Trinitron tube Approx. 50.6 cm (20 inches) picture measured diagonally, 100-degree deflection AG Pitch 0.55 mm (center 0.5 mm)	<b>Outputs</b>	VIDEO OUT (LINE A/LINE B): BNC connector (2) Y/C OUT: 4-pin mini-DIN (1) AUDIO OUT (LINE A/LINE B): phono jack (2)
<b>Resolution</b>	Video inputs: 560 TV lines RGB inputs: 720 dots $\times$ 480 lines		
<b>Color temperature</b>	9300° K + 8MPCD		
<b>Frequency response</b>	7 MHz (-6 dB, composite video) 20 MHz (-6 dB, RGB)		
<b>Linearity</b>	Horizontal: less than $\pm 5\%$ Vertical: less than $\pm 5\%$		
<b>Line full range</b>	Composite video input Horizontal: 15.734 kHz $\pm 500$ Hz Vertical: 52 to 60 Hz RGB input Horizontal: 15.0 to 36 kHz Vertical: 50 to 100 Hz		
<b>Overscan of the picture</b>	Composite video input less than +7% RGB input Horizontal: -7% to +5% variable Vertical: -7% to +5% variable		
<b>Audio</b>	2 W Monaural		

— Continued on next page —

TRINITRON® COLOR VIDEO MONITOR  
**SONY®**



**Power requirements**  
120 V AC, 50/60 Hz

**Power consumption**  
180 W Max.

**Operating temperature range**  
0°C – 35°C (32°F – 95°F)

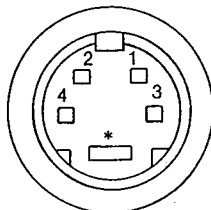
**Dimensions** Approx. 517 × 476 × 498 mm (w/h/d)  
(20<sup>3</sup>/<sub>8</sub> × 18<sup>3</sup>/<sub>4</sub> × 19<sup>5</sup>/<sub>8</sub> inches)

**Weight** Approx. 30 kg (66 lb 2 oz)

Design and specifications subject to change without notice.

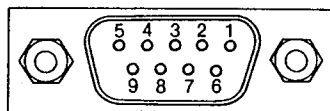
## Pin assignment

Y/C (Y/C separate) INPUT connector



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	Ground
4	GND for CHROMA-input	Ground
*	Slot for internal switch	Press the switch inside this slot. The signal from S-INPUT connector has priority over the one from LINE B VIDEO IN (BNC type) connector.

RGB multi connector (9-pin)



Pin No.	Signal				
	Analog	Digital 8-color	Digital 16-color	Digital 64-color	Digital monochrome
1	GND	GND	GND	GND	(GND)
2	(NC)	(NC)	(NC)	r	(NC)
3	R	R	R	R	(NC)
4	G	G	G	G	(NC)
5	B	B	B	B	(NC)
6	(NC)	(NC)	I	g	(NC)
7	(NC)	(NC)	(NC)	b	I
8	H/HV	H/HV	H/HV	H/HV	H/HV
9	V	V	V	V	V
Sync level	HV:1Vp-p (Negative) H,V:TTL level (Positive or Negative)	TTL level (Positive or Negative)	TTL level (H:Positive V:Positive)	TTL level (H:Positive V:Negative)	TTL level (H:Negative V:Negative)

GND: Ground R: Red G: Green B: Blue

(NC): No connection

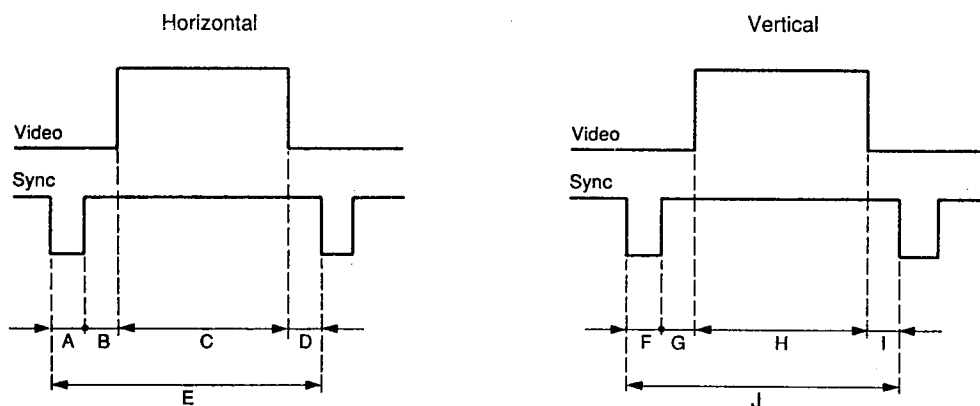
H: Horizontal sync V: Vertical sync

HV: Composite sync I: Intensity

r: Secondary red g: Secondary green b: Secondary blue

Design and specifications subject to change without notice.

## Timing Chart



		VGA compatible			CGA compatible	EGA compatible
fH		31.47 kHz			15.68 kHz	21.86 kHz
A (μs)		3.81			4.45	4.9
B (μs)		1.91			8.03	1.6
C (μs)		25.42			44.83	39.3
D (μs)		0.64			6.47	0
E (μs)		31.78			63.78	45.8
fV		70 Hz		60 Hz	60 Hz	60 Hz
F (ms)		0.064	0.064	0.064	0.19	0.6
G (ms)		1.08	1.87	1.017	2.11	0
H (ms)		12.71	11.13	15.26	12.74	16.0
I (ms)		0.416	1.206	0.349	1.64	0.05
J (ms)		14.27	14.27	16.69	16.68	16.7
Sync	H	-	+	-	+	+
Polarity	V	+	-	-	+	-

**WARNING!!**

NEVER APPLY A POWER SUPPLY VOLTAGE MORE THAN AC150V IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY SHADING AND MARK **△** ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

**ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!**

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE **△** SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ,



## SAFETY CHECK-OUT (US Model only)

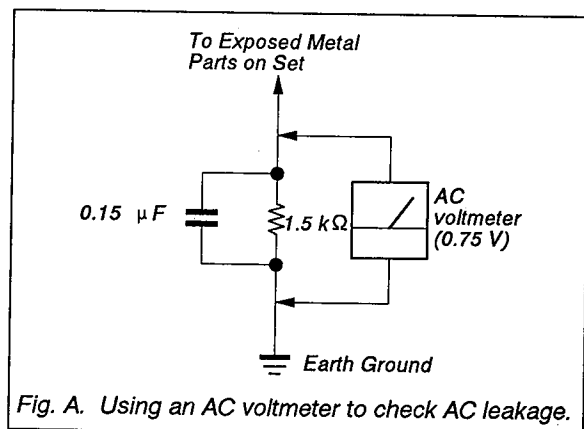
After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

### LEAKAGE TEST

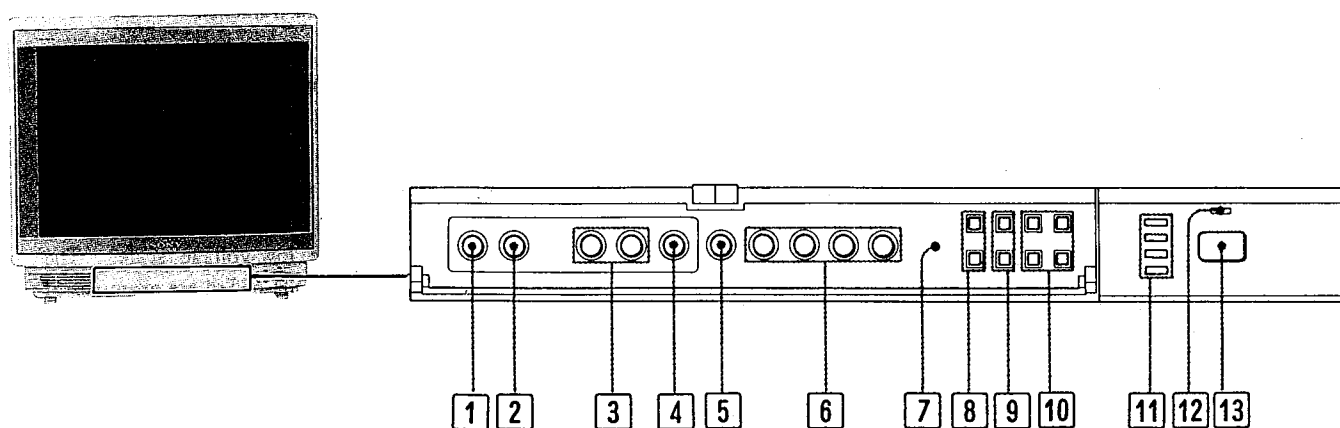
AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



## Location and Function of Parts and Controls

### Front panel



**1 RGB V HOLD (vertical hold) control**

When the picture from the RGB input rolls vertically, turn this control to stabilize it.

**2 RGB H SHIFT (horizontal shift) control**

Turn to adjust the horizontal position of the RGB input picture, if it is off center. Turn it clockwise to shift the picture toward the right and counterclockwise to shift the picture toward the left.

**Note**

If this control is not set to the center detent position, the picture may disappear from the display or good color may not be obtained on some input sources. Be sure to display the picture with the control set to the center detent position, and then adjust the horizontal position.

**3 RGB H/V SIZE (horizontal/vertical size) controls**

Turn the H-SIZE control to adjust the horizontal size.  
Turn the V-SIZE control to adjust the vertical size.

**4 RGB sub picture control**

Adjust this control if the picture level of RGB inputs differs significantly from that of video inputs.  
Turn this control clockwise to make the contrast and color intensity of the RGB input picture stronger, or counterclockwise to make them weaker.

**Note**

Controls 1 to 4 function only for RGB input pictures.

**5 V HOLD (vertical hold) control**

If the video input picture rolls vertically, use this control to stabilize it.

**6 Picture adjustment controls**

**SHARP (sharpness) control**

Normally keep this control at the center detent position. Turn it clockwise to obtain a sharper picture or counterclockwise to obtain a softer picture.

**BRIGHT (brightness) control**

Normally keep this control at the center detent position. Turn it clockwise to make the picture brighter or counterclockwise to make it darker.

**COLOR control**

Turn this control clockwise to make the picture more vivid or counterclockwise to make it paler.

**HUE control**

Use this control to obtain the most natural skin tones. Turn it clockwise to add green to the skin tones or counterclockwise to add purple/red hues.

**7 Response lamp**

Blinks when the VOL or PICTURE buttons are pressed. Lights steadily at the highest or lowest volume or picture level.

**8 PICTURE UP/DOWN buttons**

Press the UP button to make the contrast and color intensity stronger or press the DOWN button to make them weaker.

**Note**

Controls 5 and 6 do not function for RGB input pictures.

**9 VOL UP/DOWN buttons**

Press the UP button for more volume or press the DOWN button for less volume.

**10 Input select buttons**

Press to select the input source to be monitored.

**LINE A:** for input signals fed through the LINE A connectors

**LINE B:** for input signals fed through the LINE B connectors

**RGB A:** for input signals fed through the RGB A connector and the RGB A AUDIO jack

**RGB B:** for input signals fed through the RGB B connectors and the RGB B AUDIO jack

**11 Input select indicators**

**LINE A/LINE B/RGB A/RGB B**

When the input source is selected, the corresponding indicator lights.

**12 STANDBY indicator**

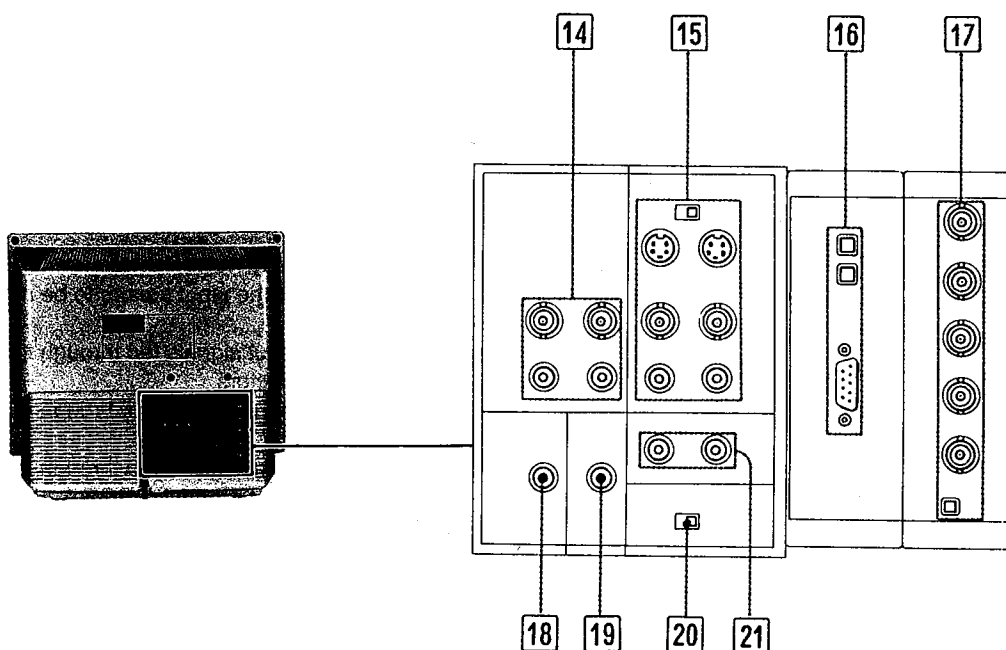
Lights when the power is turned off by remote control through control S signal.

**13 POWER switch**

Depress to turn on the monitor. Press again to turn it off.

## Location and Function of Parts and Controls

### Rear



#### 14 LINE A

To monitor the input signal fed through this line input, press the LINE A input select button on the front panel.

**VIDEO IN connector** (BNC type)

**AUDIO IN jack** (monaural) (phono type)

Connect to the video and audio outputs of video equipment such as VCRs or video disc players. For a loop-through connection, connect to the video and audio outputs of another monitor.

**VIDEO OUT connector** (BNC type)

**AUDIO OUT jack** (monaural) (phono type)

For a loop-through connection, connect to the video and audio inputs of another monitor.

When a connecting cord is connected to the VIDEO OUT connector, the 75-ohm termination of the input is automatically released and the signal input to the VIDEO IN connector is output from this connector.

#### 15 LINE B

To monitor the input signal fed through this line input, press the LINE B input select button.

**Y/C 75Ω termination switch**

When only the Y/C IN connector is connected (i.e. nothing is connected to the Y/C OUT connector), set this switch to ON.

When both Y/C IN and OUT connectors are connected together for a loop-through connection, set this switch to OFF.

**Y/C IN connector** (4-pin mini-DIN)

Connect to the Y/C output of video equipment.

**VIDEO IN connector** (BNC type)

**AUDIO IN jack** (monaural) (phono type)

#### Note

When both the Y/C IN and VIDEO IN connectors are connected, the input signal fed through the VIDEO IN connector cannot be monitored.

**Y/C OUT connector** (4-pin mini-DIN)

For a loop-through connection, connect to the Y/C input of another monitor.

**VIDEO OUT connector** (BNC type)

**AUDIO OUT jack** (monaural) (phono type)

## **16 RGB A interface unit**

### **16, 64 COLOR/8 COLOR selector**

Depress this selector when digital RGB equipment having 16- or 64-color mode is connected to the RGB A connector. The 16- or 64-color mode is automatically selected by sync polarity. Keep the selector released for digital RGB equipment having the 8-color mode.

### **DIGITAL/ANALOG selector**

Depress this selector when video equipment having digital RGB output is connected to the RGB A connector. Release the selector for equipment having analog RGB output.

### **RGB A connector (D-sub 9-pin)**

Connect to video equipment having either digital or analog RGB output.

To monitor the input signal fed through this connector, press the RGB A input select button.

## **17 RGB B interface unit**

### **R/G/B connectors (BNC type)**

Connect to the analog R/G/B outputs of video equipment. To monitor the input signal fed through these connectors, press the RGB B input select button.

### **HVD/HD input connector (BNC type)**

When video equipment is connected to the R/G/B connectors and does not provide sync signal on G-signal, connect it to the composite sync or horizontal sync output of the equipment.

### **VD input connector (BNC type)**

Connect to the vertical sync output of video equipment. For video equipment with H/V separate sync signal, connect it to both the HVD/HD and VD connectors.

#### **Notes**

- For video equipment with H/V composite sync and V sync, use only the composite sync connection.
- If horizontal sync signal has no serration pulses\*, the monitored picture may be distorted. Input the horizontal sync signal with serration pulses.

\*A pulse occurring at vertical blanking periods.

### **SYNC ON GREEN selector**

When video equipment is connected to the R/G/B connectors;

Depress this selector to operate the monitor on the sync signal on G-signal. To operate on the H/V separate sync signal or composite sync signal fed through the HVD/HD and/or VD input connector(s), keep the selector released.

#### **Note**

Be sure to depress the selector (ON) when video equipment providing sync signal on G-signal is connected. Otherwise, color reproduction may not be correct.

## **18 RGB A SELECT connector (minijack)**

When ground potential is applied to this connector, signal input from the RGB A connector will be monitored regardless of the setting of the input select buttons on the front panel. If a power supply of 5 V is applied to the connector or the circuit is open, the input signal selected with the input select buttons will be monitored.

This connector allows the input source monitored to be selected with external equipment.

## **19 CONTROL S input connector (minijack)**

Connect to the CONTROL S output of video equipment. The power on/off, input select, volume and picture settings can be remotely controlled through the equipment connected.

## **20 RGB AUTOMATIC WHITE BALANCE switch**

Normally set this switch to ON. The white balance is adjusted by current feedback circuit. When the vertical picture size of RGB input is reduced with the V SIZE control, a white stripe may appear on the top of the screen. To delete the stripe, set the selector to OFF.

The white balance adjustment level in the OFF position is preset at the factory, but there may be some changes in the level over time.

## **21 RGB A/RGB B AUDIO input jacks (phono type)**

Connect to the audio outputs of the RGB equipment connected to the RGB A/RGB B connectors.

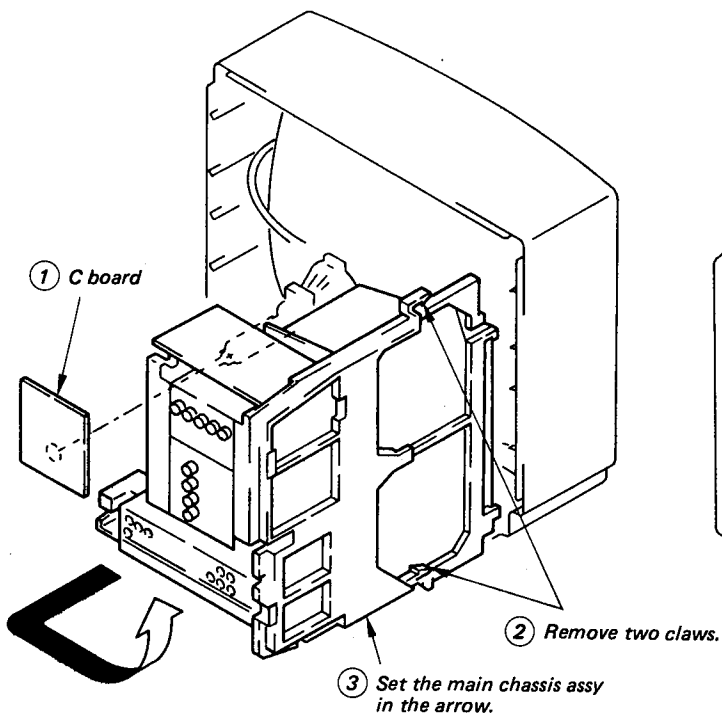
#### **Note**

Mutual interference of deflection may occur when several monitors are ranged side by side for a loop-through connection, as this unit is compatible with the signals of high horizontal frequencies. In such a situation, allow adequate space between each unit.

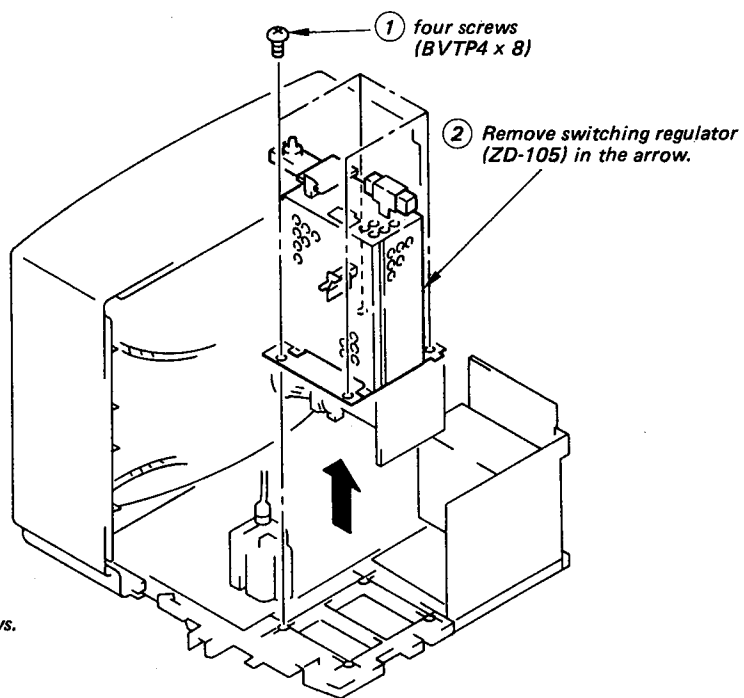
## SECTION 2

### DISASSEMBLY

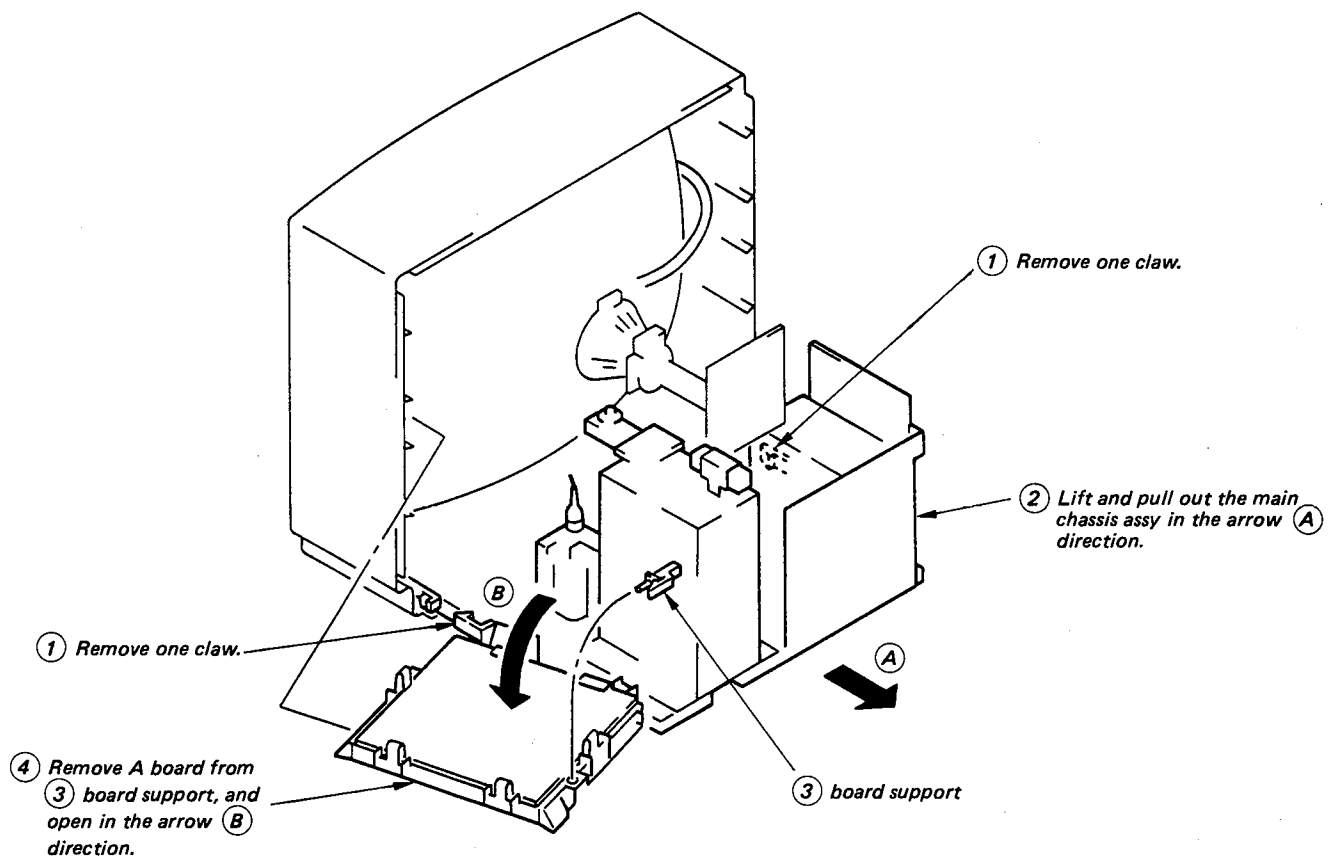
#### 2-1. SERVICE POSITION



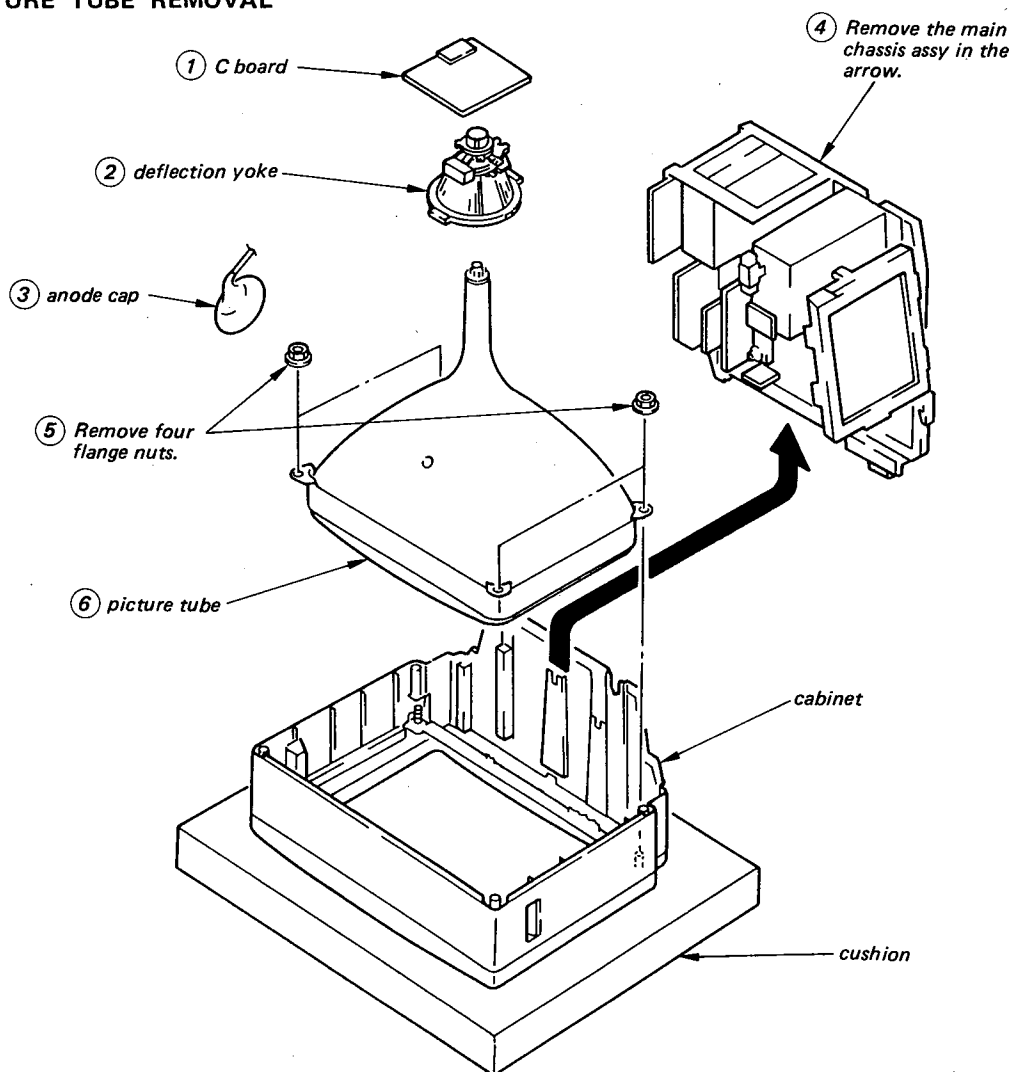
#### 2-2. SWITCHING REGULATOR (ZD-105) REMOVAL



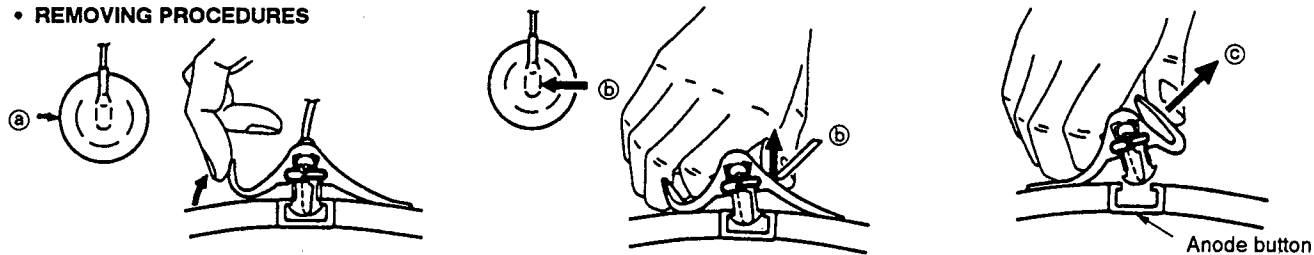
#### 2-3. A BOARD REMOVAL



## 2-4. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP • REMOVING PROCEDURES



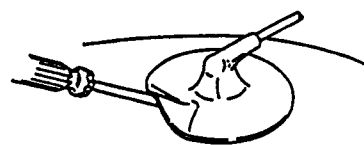
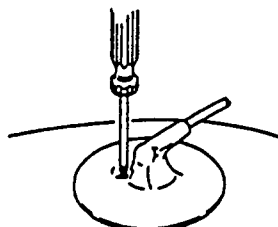
① Turn up one side of the rubber cap in the direction indicated by the arrow ①.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ③.

### • HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!  
A metal fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

PICTURE control ..... 80%  
BRIGHTNESS control ..... 50%

Perform the adjustments in order as follows :

- 3-1. Beam Landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White Balance

**Note :** Test Equipment Required.

1. Pattern Generator
2. Degausser
3. Color Annalyzer (Minolta)
4. Luminance Level Meter
5. Digital Multimeter
6. DC Power Supply

#### Preparation

- Set the side of the unit with the PICTURE TUBE to become it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

#### 3-1. BEAM LANDING

1. Receive an entirely white signal with the pattern generator.  
PICTURE ..... maximum  
BRIGHTNESS ..... center click
2. Adjust the focus and the horizontal convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 3-1.
4. Switch over the pattern generator to green.
5. Move the deflection yoke backward, and adjust with the purity control to become green is in the center and blue and red are at the sides, evenly. (Fig. 3-2)
6. Move the deflection yoke forward, and adjust to become the entire screen becomes green. Repeat 5 to 7 as to red and blue.
7. When landing at the corners is not right, correct by using the magnet. (Fig. 3-3)
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

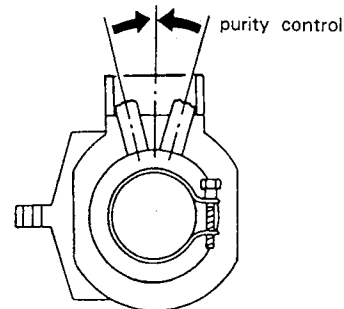


Fig. 3-1

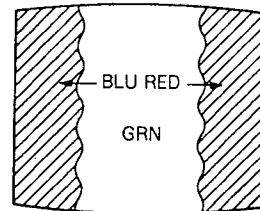


Fig. 3-2

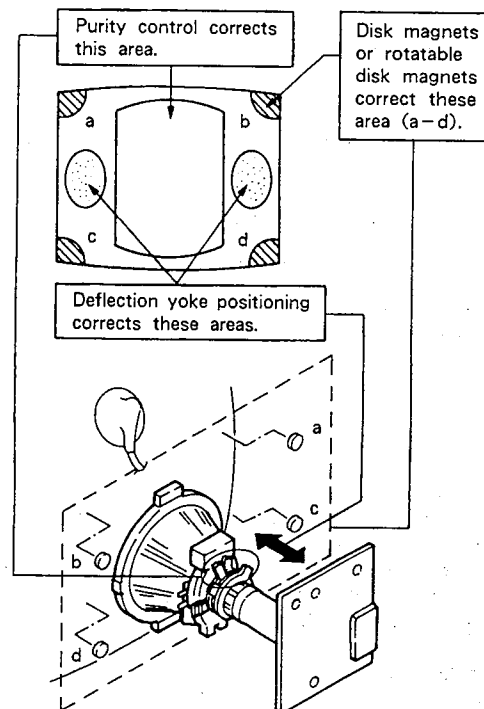
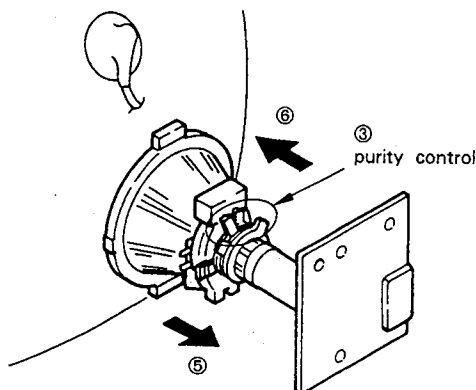


Fig. 3-3



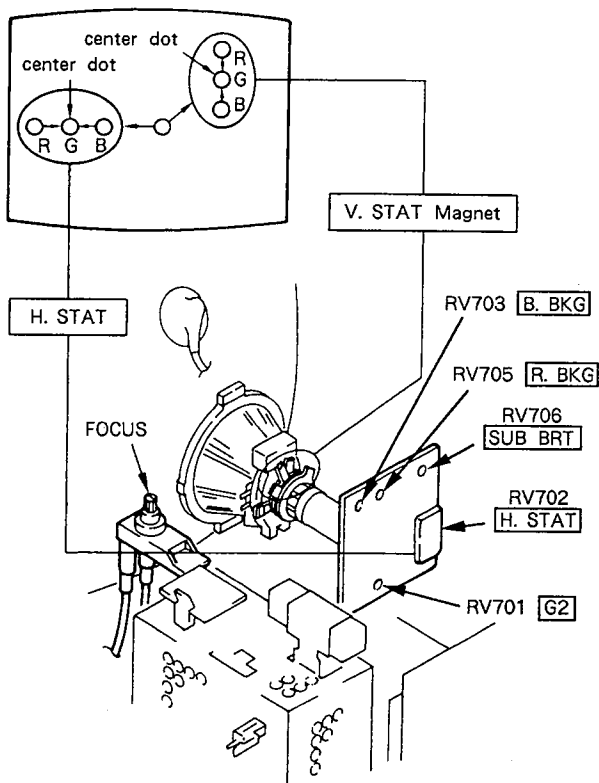
### 3-2. CONVERGENCE

#### (1) Horizontal and Vertical Static Convergence Adjustment on the Center of Screen.

- Before starting, perform V. SIZE, V. CENT, H. SIZE, H. CENT and Screen Distortion adjustment rightly.

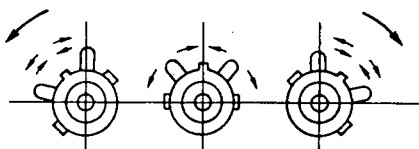
#### (Static Convergence Adjustment)

- Receive a dot signal and Set CONTRAST to normal.
- Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
- Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)



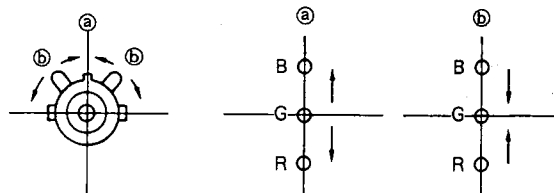
※ If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform adjustment using V. STAT at the same time while tracking.

(Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.)

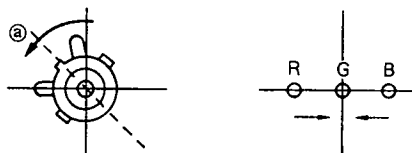


- When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green and blue dots move as shown below.

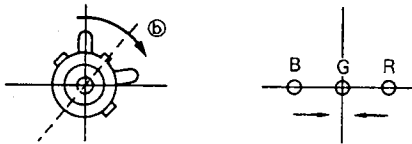
① When moving the V. STAT Magnet open or close.



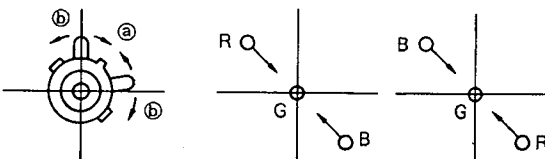
② When moving the V. STAT magnet counterclockwise.



③ When moving the V. STAT magnet clockwise.



④ When tilt the V. STAT magnet and open or close.

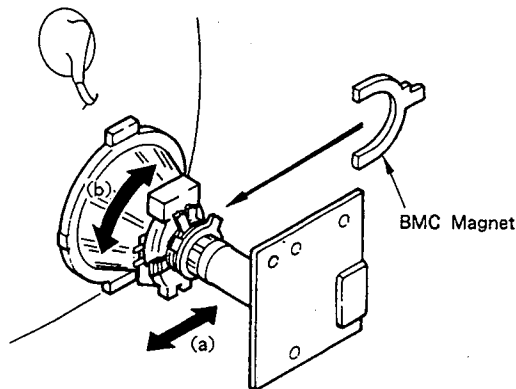


If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.

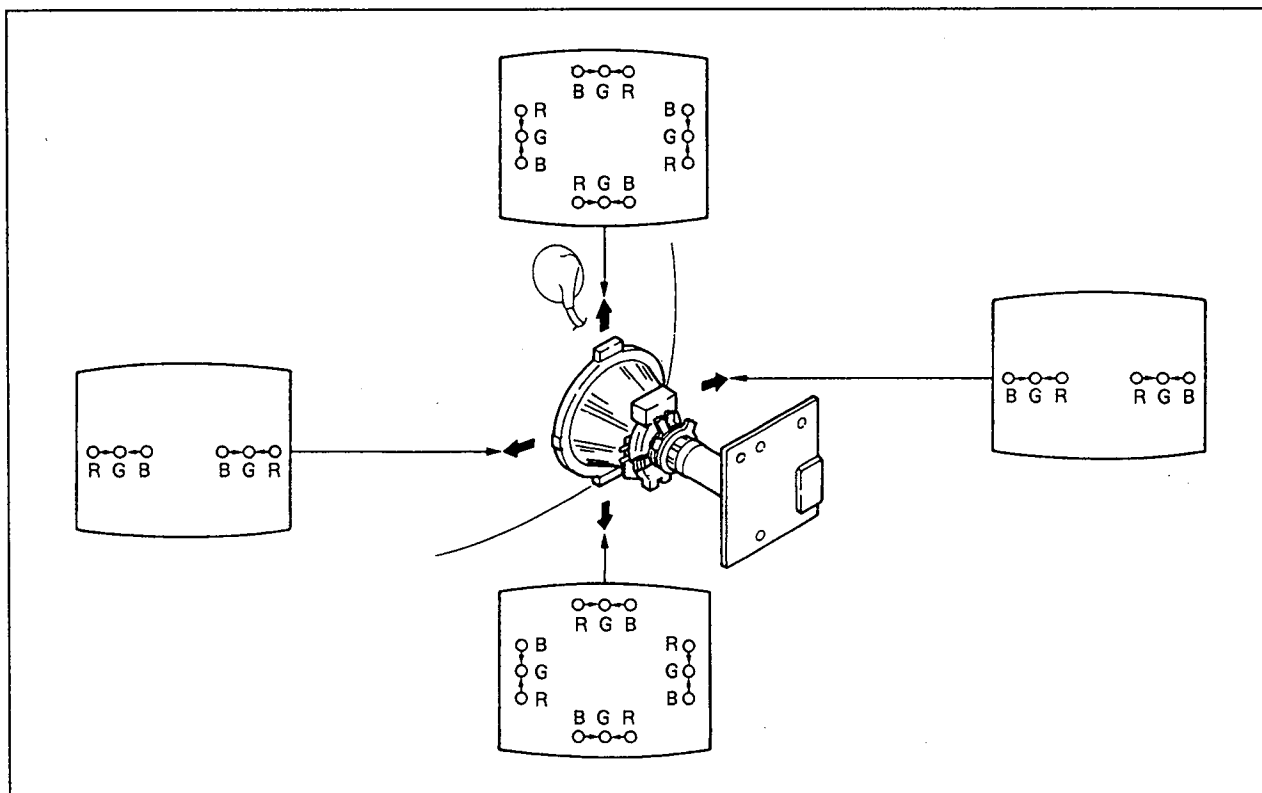


## (2) Horizontal and Vertical Dynamic Convergence

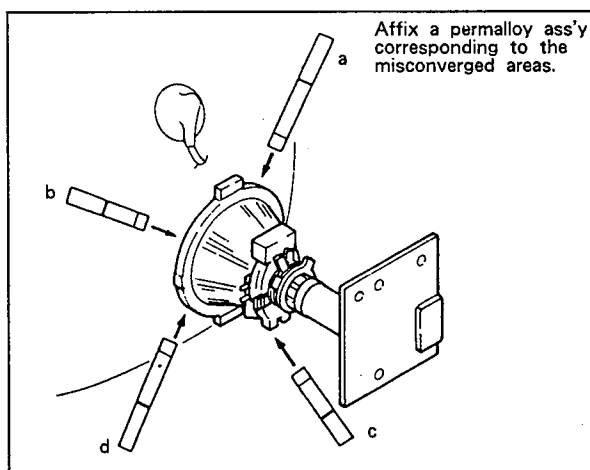
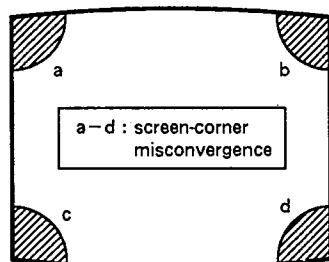
Adjustment the environs of the Screen

### (Dynamic Convergence Adjustment)

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



## (3) Screen-corner Convergence



## 3-3. FOCUS

1. Receive a VIDEO monoscope signal.
2. Adjust FOCUS VR for a best focus.

### 3-4. G2 (SCREEN)

1. Confirm that the voltage of G1 on the C board is  $30 \pm 5$  V.
2. Input a dot signal ( $f_H=31.5$  kHz,  $f_y=70.0$  Hz) to RGB B input.
3. Draw out C-4 connector from C board and Q3-3 connector from Q3 board.
4. Apply DC voltage of 180 V from the DC stabilized power source to each cathode of R, G and B.
5. Adjust G2 VR (RV701) so that the luminance line is immediately before disappear.
6. Remove DC voltage and restore the connectors.

### 3-5. WHITE BALANCE

1. RGB W/B Adjustment (When RGB AUTOMATIC WHITE BALANCE is ON).

- 1) Input an entire white signal to RGB B input, and turn ON the AUTO W/B SW of user's control, and turn ON the SYNC ON GREEN SW.

- 2) Set SUB PICTURE to maximum and BRIGHT to center click.

- 3) Observing the screen, adjust PICTURE control to become the screen is dimly lit.

- 4) Adjust B. BKG (RV703) and R. BKG (RV705) white balance.

**Note :** The color temperature is set to 9300 degrees K +8 MPCD.

- 5) Set PICTURE control to maximum.

- 6) Adjust G. DRIVE (RV1202) and B. DRIVE (RV1203) on Q3 board for the high light white balance.

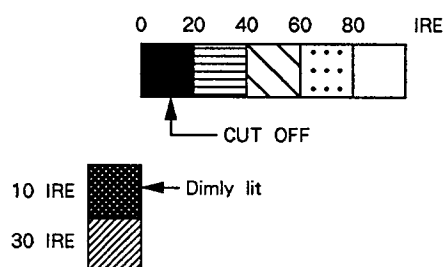
- 7) Repeat from 1) to 6) until getting the good white balance while tracking.

- 8) Input a monoscope signal to Green of RGB B input.

- 9) Set as follows.

PICTURE ..... maximum  
SUB PICTURE ..... maximum  
BRIGHT ..... center click

- 10) Adjust SUB BRT (RV706) level so that a part of 0 IRE is CUT OFF, and a part of 10 IRE is dimly lit.



**Note :** Perform this adjustment where a dark place.

2. RGB W/B Adjustment (When RGB AUTOMATIC WHITE BALANCE is OFF).

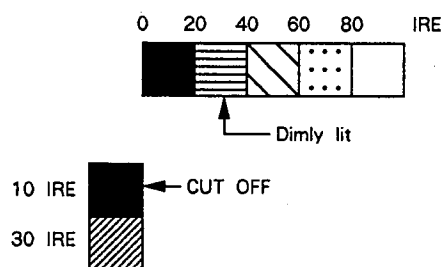
- 1) Input a monoscope signal to Green of RGB B input, and turn ON the SYNC ON GREEN SW.

- 2) Set as follows.

PICTURE ..... maximum  
SUB PICTURE ..... maximum  
BRIGHT ..... center click

- 3) Turn OFF the AUTO W/B SW of user's control.

- 4) Adjust S SUB BRT (RV1207) on Q3 board so that a part of 10 IRE is CUT OFF, and 20 IRE is dimly lit.



**Note :** Perform this adjustment where a dark place.

- 5) Input an entire white signal to RGB B input.
- 6) Set SUB PICTURE to maximum and BRT to center click.

- 7) Adjust PICTURE control so that the screen is dimly lit.

- 8) Adjust R CUT OFF (RV1206) and B CUT OFF (RV1204) on Q3 board for white balance.

- 9) Set as follows.

PICTURE ..... maximum  
SUB PICTURE ..... maximum  
BRIGHT ..... center click

**Note :** The color temperature is set to 9300 degrees K +8 MPCD.

- 10) Confirm that the W/B have come off when high lighting conditions.

- 11) Repeat from 1) to 10) until getting the good white balance while tracking.

3. Video W/B Adjustment.

- 1) Input an entire-white signal to LINE A.

- 2) Set PICTURE to minimum and BRT to center click.

- 3) Adjust the RV304 and RV305 on D3 board for the best white balance.

- 4) Change signal with a monoscope signal, adjust RV303 so that a part of 60 IRE is CUT OFF, and 70 IRE is dimly lit.

## SECTION 4

### SAFETY RELATED ADJUSTMENTS

#### ☒ R1523, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ■ on the schematic diagram).

IC1503, D1503, D2505, R549, R1522, R1523, R1524, R1525, R1526, R1527, R1564, R1565, R1566, R2503, R3545, R3546, R3547, R4542

1. Apply AC voltage of  $130 \pm 5$  V (60 Hz), and receive a dot signal of H. V SEPARATE SYNC (RGB •  $f_H = 15.7$  kHz,  $f_v = 60$  Hz).
2. Set PICTURE, BRIGHT and SUB PICTURE controls to minimum.
3. Confirm that the voltage of TP501 is more than 8 V DC at this time.
4. Apply DC voltage of  $10.83 \pm 0.05$  V DC gradually to pin ① of A-7 connector from the DC stabilized power source, confirm the HOLD-DOWN circuit operates immediately and raster disappears. When the HOLD-DOWN circuit starts operating, switch OFF the POWER of the set immediately.
5. Turn the POWER switch ON, and apply DC voltage of  $10.58 \pm 0.05$  V DC gradually to pin ① of A-7 connector from the DC stabilized power source, confirm the HOLD-DOWN circuit does not operate. If the HOLD-DOWN circuit operate, switch OFF the POWER of the set immediately.
6. Switch over the input signal to an entire-white signal of H. V SEPARATE SYNC (RGB •  $f_H = 15.7$  kHz,  $f_v = 60$  Hz).
7. Set PICTURE, BRIGHT and SUB PICTURE controls to maximum.
8. Apply DC voltage of  $10.43 \pm 0.05$  V DC gradually to pin ① of A-7 connector from the DC stabilized power source, confirm the HOLD-DOWN circuit operates immediately and raster disappears. When the HOLD-DOWN circuit starts operating switch OFF the POWER of the set immediately.
9. When step 4 to 8 is not satisfied, readjustment should be performed by altering the resistance value of ☒ R1523.

#### ☒ R2543, B+ MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing the following components (marked with ■ on the schematic diagram).

IC621, Q2509, D2502, C625, C638, C639, C675, C677, L650, R620, R626, R628, R643, R2532, R2533, R2534, R2535, R2536, R2537, R2538, R2539, R2540, R2541, R2542, R2543, R2544, R2545, R2546, R2551, R2552, R2555, T621, T622

1. Receive a dot signal of H. V SEPARATE SYNC (RGB •  $f_H = 15.76$  kHz,  $f_v = 60$  Hz).
2. Set PICTURE, BRIGHT and SUB PICTURE to minimum.

3. Connect a digital multimeter to pin ① of A-8 connector, and confirm that the voltage is  $58.0 \pm 0.5$  V.
4. Switch over the input signal to a dot signal of H. V SEPARATE SYNC (RGB •  $f_H = 31.5$  kHz,  $f_v = 60$  Hz).

Confirm that the voltage is  $119.0 \pm 0.5$  V by this time.

5. When step 3 and 4 is not satisfied, readjustment should be performed by altering the resistance value of ☒ R2543.

#### ☒ R2555, CONFIRMATION METHOD (RGB system F-V)

The following adjustments should always be performed when replacing the following components (marked with ■ on the schematic diagram).

IC501, IC2502, IC2503, D2506, C2505, C2564, R2554, R2555, R2556, R2558, R2559

1. Receive a dot signal of H. V SEPARATE SYNC (RGB •  $f_H = 15.7$  kHz,  $f_v = 60$  Hz).
2. Connect a digital multimeter to pin ① of IC2503, and confirm that the voltage is  $3.2 \pm 0.05$  V.
3. Switch over the input signal to a dot signal of H. V SEPARATE SYNC (RGB •  $f_H = 31.5$  kHz,  $f_v = 60$  Hz).

Confirm that the voltage is  $6.4 \pm 0.1$  V by this time.

4. When step 2 and 3 is not satisfied, readjustment should be performed by altering the resistance value of ☒ R2555.

#### ☒ R3546, CONFIRMATION METHOD (SWITCHING POINT CONFIRMATION)

The following adjustments should always be performed when replacing the following components (marked with ■ on the schematic diagram).

IC2507, Q2528, D2522, C2542, R3546, R3549, R3579, R3586, R3587

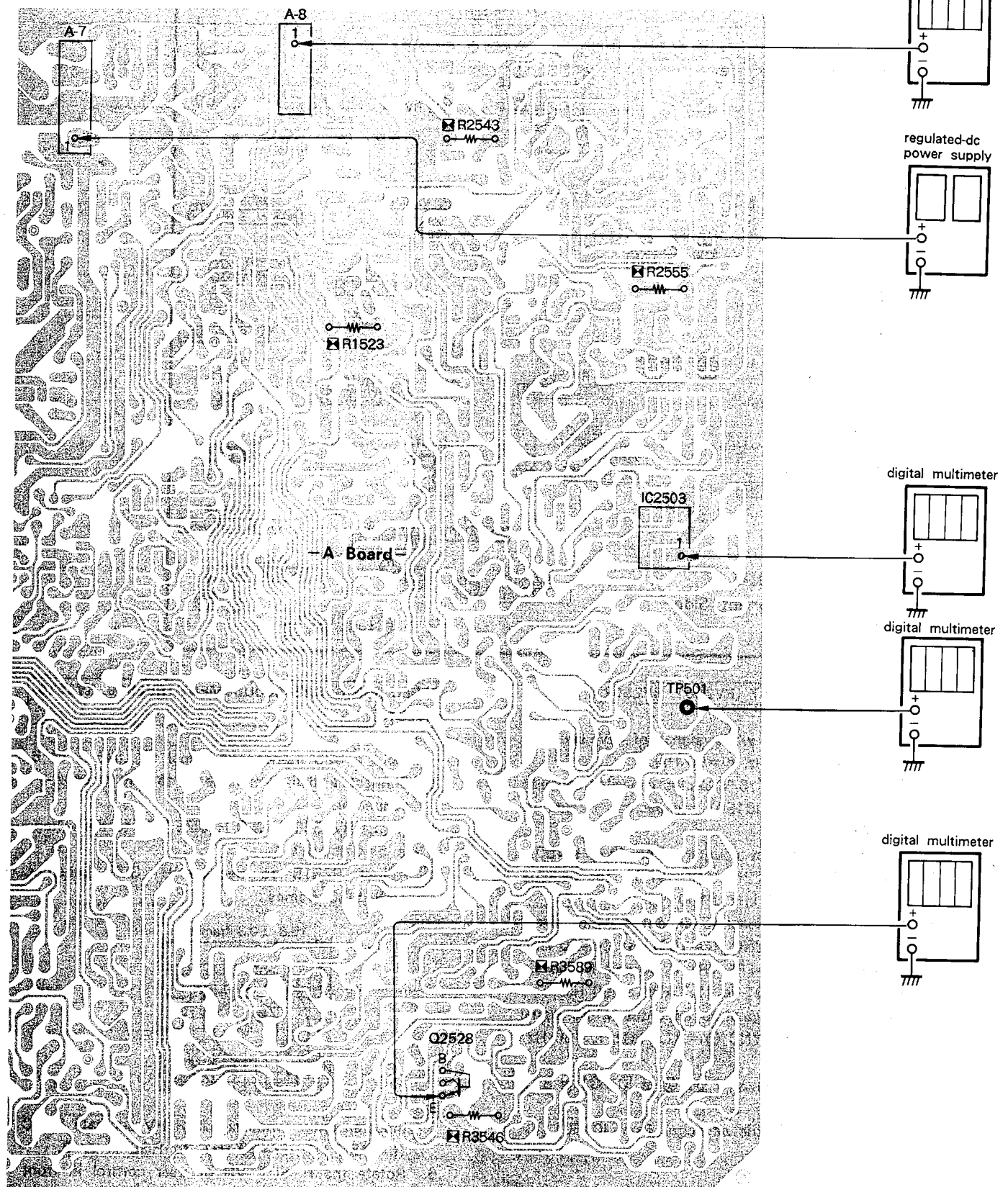
1. Connect a digital multimeter to emitter of Q2528, and confirm that the voltage is  $7.7 \pm 0.1$  V.
2. When that the voltage is differ from step 1, readjustment should be performed by altering the resistance value of ☒ R3546.

#### ☒ R3589, CONFIRMATION METHOD (VIDEO F-V)

The following adjustments should always be performed when replacing the following components (marked with ■ on the schematic diagram).

IC2512, R2543, R3546, R3580, R3581, R3589

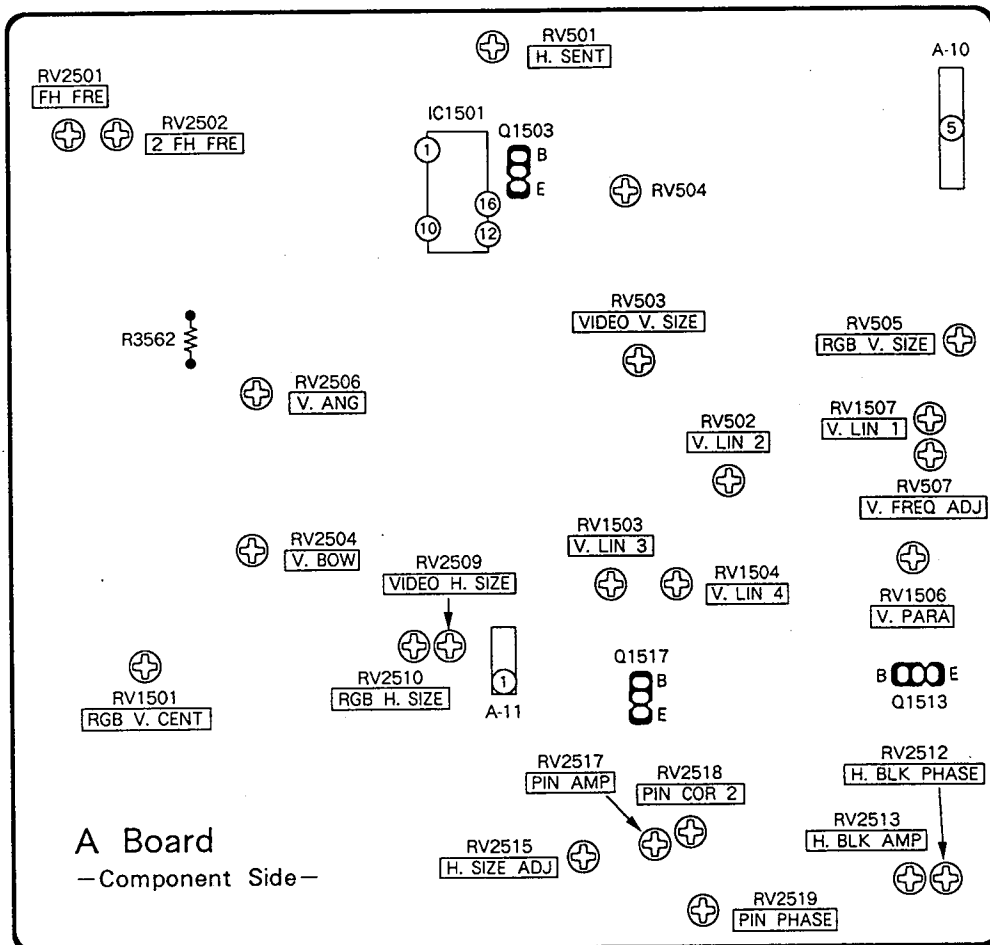
1. Input a VIDEO dot signal.
2. Connect a digital multimeter to pin ① of A-8 connector, and confirm that the voltage is  $58.0 \pm 0.5$  V.
3. When that the voltage is differ from step 2, readjustment should be performed by altering the resistance value of ☒ R3589.



## SECTION 5

### CIRCUIT ADJUSTMENTS

### 5-1. A BOARD ADJUSTMENTS

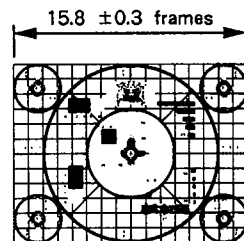


#### H. FREQ ADJUSTMENT (RV2501, RV2502)

1. Receive an entire white signal of HV separate SYNC ( $f_H=31.5$  kHz,  $f_V=60$  Hz).
2. Connect a 33  $\mu$ F/16 V electric capacitor between pins ① and ⑩ of IC1501. (capacitor + side to pin ①)
3. Connect a frequency counter to pin ⑩ of IC1501.
4. Adjust RV2502 ( $2f_H$  FRE VR) to become frequency is 31.5 kHz  $\pm$ 100 Hz.
5. Switch the inlet signal to an entire white signal of HV separate SYNC ( $f_H=15.7$  kHz,  $f_V=60$  Hz).
6. Adjust RV2501 ( $f_H$  FRE VR) to become frequency of pin ⑩ of IC1501 is 15.7 kHz  $\pm$ 100 Hz.
7. Return the inlet signal to an entire white signal of HV separate SYNC ( $f_H=31.5$  kHz,  $f_V=60$  Hz) again.
8. Confirm the frequency of pin ⑩ of IC1501 is 31.5 kHz  $\pm$ 100 Hz.
9. Disconnect a electric capacitor from IC1501.

**VIDEO RGB H. SIZE ADJUSTMENT (RV2509, RV2510, RV2515)**

1. Input a 525 monoscope signal to LINE A or B.
2. Connect a digital multimeter to pin ① of A-11 connector.
3. Adjust RV2509 (VIDEO H. SIZE VR) to the voltage is  $54.0 \pm 0.5$  V.
4. Adjust R2515 to become H. SIZE becomes  $15.8 \pm 0.3$  frames.



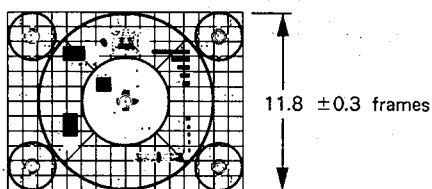
5. Input an entire white signal of HV separate SYNC ( $f_H=15.7$  kHz,  $f_V=60$  Hz) to RGB A or B.
6. Rotate the H. SIZE VR of user control in front panel fully clockwise.
7. Adjust RV2510 (RGB H. SIZE VR) to the voltage of pin ① of A-11 connector is  $53.0 \pm 0.5$  V.

**V. FREQ ADJUSTMENT (RV507)**

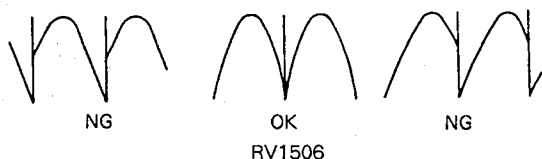
1. Connect a 33  $\mu$ F/16 V electric capacitor between base and emitter of Q1503. (capacitor + side to base)
2. Input a 525 monoscope signal to RGB B input (SYNC ON Green MODE)
3. Rotate the V. SIZE VR and RGB V. HOLD VR of user control in front panel fully clockwise.
4. Connect a frequency counter to pin ⑫ of IC1501.
5. Adjust RV507 (V. FRE VR) to the frequency is  $77.0 \pm 1.0$  Hz level.
6. Disconnect a 33  $\mu$ F/16 V electric capacitor from Q1503.
7. Put back the V. HOLD to best condition.

**V. SIZE, V. LIN AND V. CENT ADJUSTMENTS  
(RV502, RV503, RV504, RV505, RV1501, RV1503,  
RV1504, RV1506, RV1507)**

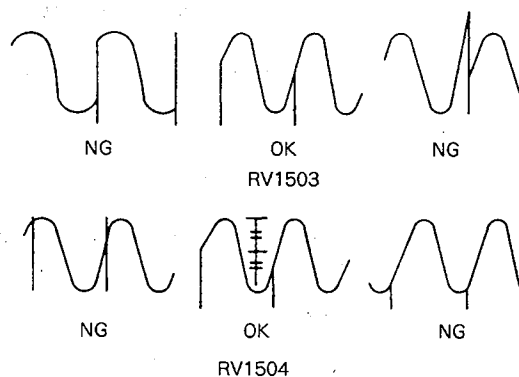
1. Input a 525 monoscope signal to RGB B input (SYNC ON Green MODE).
2. Rotate the V. SIZE VR of user's control in front panel fully clockwise.
3. Connect a digital multimeter to pin ⑤ of A-10 connector.
4. Adjust RV1501 (RGB V. CENT) to the voltage becomes  $13.0 \pm 0.5$  V.
5. Adjust RV505 (RGB V. SIZE VR) roughly to the V. SIZE becomes  $11.8 \pm 0.3$  frames.



6. Connect an oscilloscope to emitter of Q1513.
7. Adjust RV1506 (V. PARA VR) to the waveform becomes as follows.



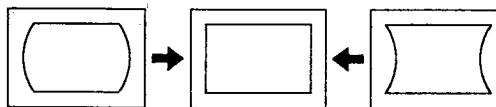
8. Connect an oscilloscope to emitter of Q1517.
9. Adjust RV1503 (V. LIN 3 VR) and RV1504 (V. LIN 4 VR) to the waveform becomes as follows.



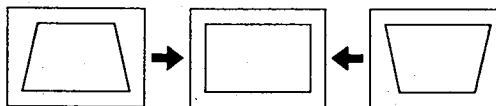
10. Adjust V linearity with RV502 (V. LIN 2 VR) and RV1507 (V. LIN 1 VR).
11. Adjust RV505 (V. SIZE VR) to the V. SIZE becomes  $11.8 \pm 0.3$  frames again.
12. Input a 525 monoscope signal to LINE A or B.
13. Adjust RV503 (VIDEO V. SIZE) to the V. SIZE becomes  $11.8 \pm 0.3$  frames.
14. While watching the picture, confirm the screen is streamed below by rotate the V. HOLD VR (VIDEO) of user's control in front panel clock wise.
15. Adjust V. CENT with RV504 (VIDEO V. CENT VR).

**PICTURE DISTORTION CORRECT ADJUSTMENT  
(RV501, RV2504, RV2506, RV2517, RV2518, RV2519)**

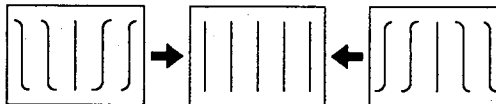
PIN AMP (RV2517)



PIN PHASE (RV2519)



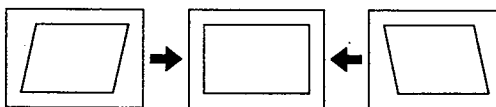
PIN COR 2 (RV2518)



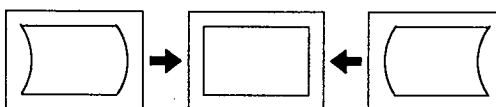
H. CENT (RV501)



V. ANG (RV2506)



V. BOW (RV2504)



**H. BLK AMP VR (RV2513) MOTION CONFIRMATION**

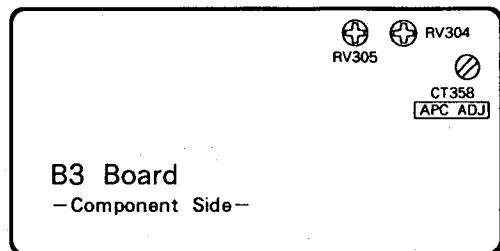
1. Confirm that the BLANKING width is transformed when RV2513 is rotating.
2. After confirmation, rotate RV2513 fully clockwise from looks upon conductor side.

**H. BLK PHASE VR (RV2512) MOTION CONFIRMATION**

1. Confirm that the BLANKING phase is transformed when RV2512 is rotating.
2. After confirmation, rotate RV2512 fully counter clockwise from looks upon conductor side.

**CAUTION (R3562) :** When replacing R3562, be sure to replace only with an invariable number.

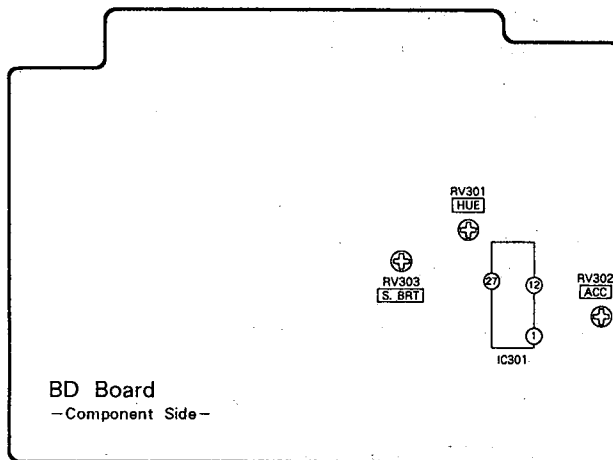
**5-2. B3 BOARD ADJUSTMENT**



**APC ADJUSTMENT (CT358)**

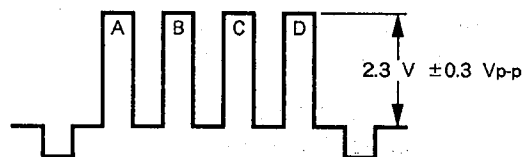
1. Apply DC voltage of 4.0 V to pin ③ of IC301 on BD board from the DC stabilized power source.
2. Short circuit between pins ⑪ and ⑫ of IC301 on BD board with a jumper wire.
3. Input a NTSC 3.58 color-bar signal to LINE A or B.
4. Adjust color synchronisation with CT358 on B3 board.
5. Disconnect a jumper wire from IC301.

**5-3. BD BOARD ADJUSTMENTS**



**ACC ADJUSTMENT (RV302)**

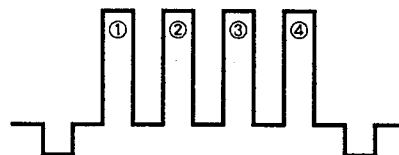
1. Set PIC to maximum, COL to center and HUE to center.
2. Input a NTSC 3.58 color-bar signal to LINE A or B.
3. Connect an oscilloscope to pin ⑦ of IC301.
4. Adjust RV302 so that each height of waveform (A-D) becomes to  $2.3 \pm 0.3$  Vp-p.



5. Switch over the color-bar signal to black and white, confirm that is not color. And then, return to color-bar signal again, confirm black and white becomes color automatically.

**HUE ADJUSTMENT (RV301)**

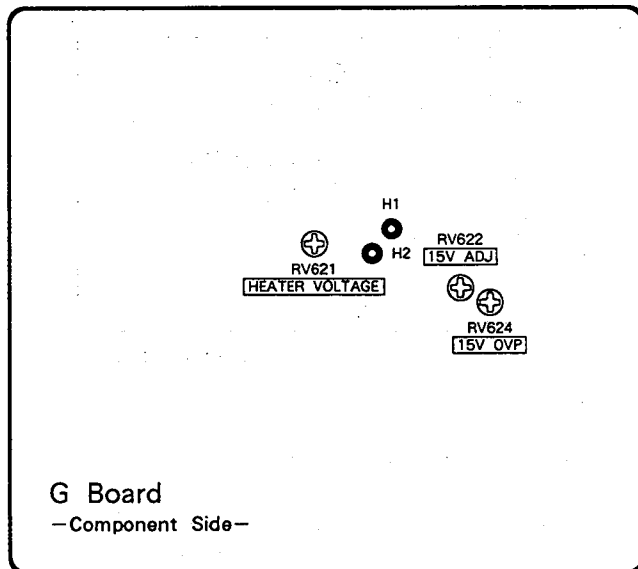
1. Input a NTSC 3.58 color-bar signal to LINE A or B.
2. Connect an oscilloscope to pin ⑦ of IC301.
3. Adjust RV301 to the waveform is equal about height of waveform (① - ④) as follows.





**BLACK LEVEL ADJUSTMENT (RV303)**

1. Set RV304 and RV305 on B3 board to mechanical center.
2. Input a color-bar signal to LINE A or B.
3. Adjust RV303 so that the black point of color-bar becomes CUT OFF.

**5-4. G BOARD ADJUSTMENTS****15 V ADJUSTMENT (RV622)**

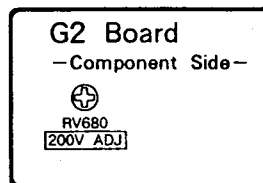
1. Connect a digital multimeter to 15 V line.
2. Adjust RV622 so that the voltage is 14.7 V.
3. After adjustment, settle the variable resistor with RTV.

**HEATER VOLTAGE ADJUSTMENT (RV621)**

1. Connect a digital multimeter between H2 and H1 on G board. (+ side → H2, - side → H1)
2. Adjust RV621 so that the voltage is 6.7 V.

**15 V OVP ADJUSTMENT (RV624)**

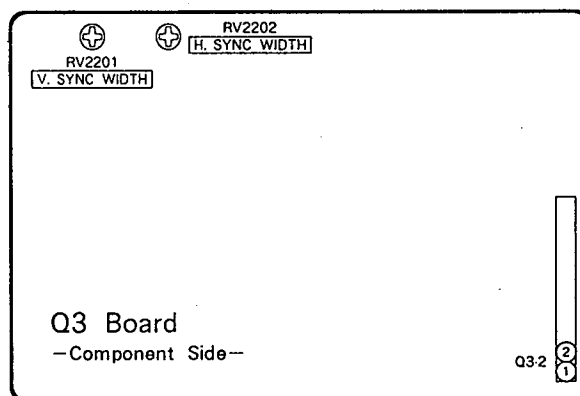
1. Disconnect a 15 V line terminal of RV624.
2. Apply DC voltage of 18 V to terminal is disconnected side.
3. Adjust RV624 so that relay voltage is OFF.

**5-5. G2 BOARD ADJUSTMENT****200 V ADJUSTMENT (RV680)**

1. Connect a digital multimeter to 200 V line.
2. Adjust RV680 so that the voltage is 200 V.

**CAUTION :** Perform the adjustments in order as follows ;

1. 15 V Adjustment (RV622)
2. HEATER VOLTAGE Adjustment (RV621)
3. 15 V OVP Adjustment (RV624)
4. 200 V Adjustment (RV680)

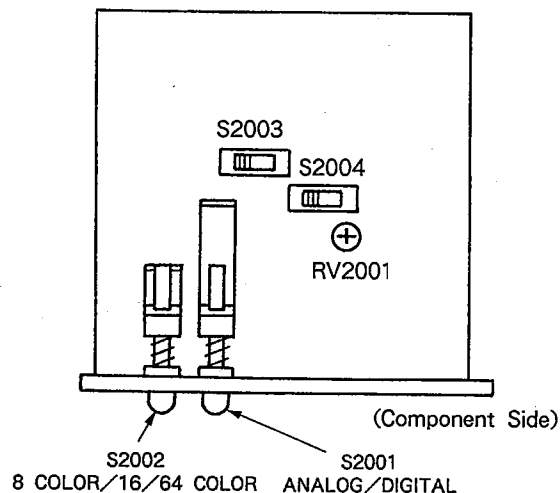
**5-6. Q3 BOARD ADJUSTMENTS****H.SYNC WIDTH ADJUSTMENT (RV2202)**

1. Input a cross-hatch signal to RGB A or B.
2. Connect an oscilloscope to pin ② of Q3-2 connector.
3. Adjust RV2202 (H. SYNC WIDTH VR) so that the SYNC width becomes to  $5.0 \pm 0.1 \mu\text{sec}$ .

**V. SYNC WIDTH ADJUSTMENT (RV2201)**

1. Output a cross-hatch signal to RGB A or B.
2. Connect an oscilloscope to pin ① of Q3-2 connector.
3. Adjust RV2201 (V. SYNC WIDTH VR) so that SYNC width becomes to  $0.1 \pm 0.01 \text{ msec}$ .

## 5-7. U1 Board Adjustment



### F/V Comparator Adjustment

1. Connect an oscilloscope to collector of Q2024 on U1 board.
2. Input the lower 19.5 kHz ( $f_H$ ) signal to RGB-A inlet.
3. Confirm that collector voltage of Q2024 is high (H).
4. Input the upper 21 kHz ( $f_H$ ) signal to RGB-A inlet.
5. Confirm that collector voltage of Q2024 is low (L).
6. If item 3 and 5 aren't satisfied, turn RV2001 to adjust.

Sync Polarity		Q2024 Collector	
H sync	V sync	$f_H < 19.5 \text{ kHz}$	$21.5 \text{ kHz} < f_H$
Positive	Negative	H	L

H: upper 3.5V  
L: lower 0.4V

### Service Switches on the U1 Board

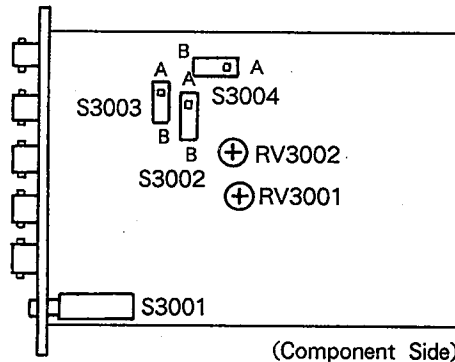
Normally, when a digital signal is input, differentiation between MDA (monochrome), CGA (16 colors) and EGA (64 colors) can be performed automatically according to sync polarity by setting S1 to 16/64 COLOR. When automatic differentiation is not possible due to signal condition, S2004 is used. S2004 is normally set to the "8" position at the factory. Change it to 16, 64 or MONO. Then switch S1 to the 8 COLOR position (S1 can be switched between 8 COLOR and 16/64 COLOR, but the display mode when set to 8 COLOR can actually be selected with S2004).

S2003, on the other hand, is used to switch display color in the monochrome mode between green and amber. It is normally set to the green position at the factory.

### Sync Slice level adjustment

1. S3001 (Sync on green SW) make press. ☐
2. Input 100 IRE white signal (Composite video : NTSC) to green inlet.
3. Adjust RV3001 make sync of output green signal (③ pin of U2-1 connector) to disappear.

## 5-8. U2 Board Adjustment



### Normal internal SW condition

S3001 (Sync on Green SW)	Depressed <input type="checkbox"/>
S3002	side A
S3003	side A
S3004	side A

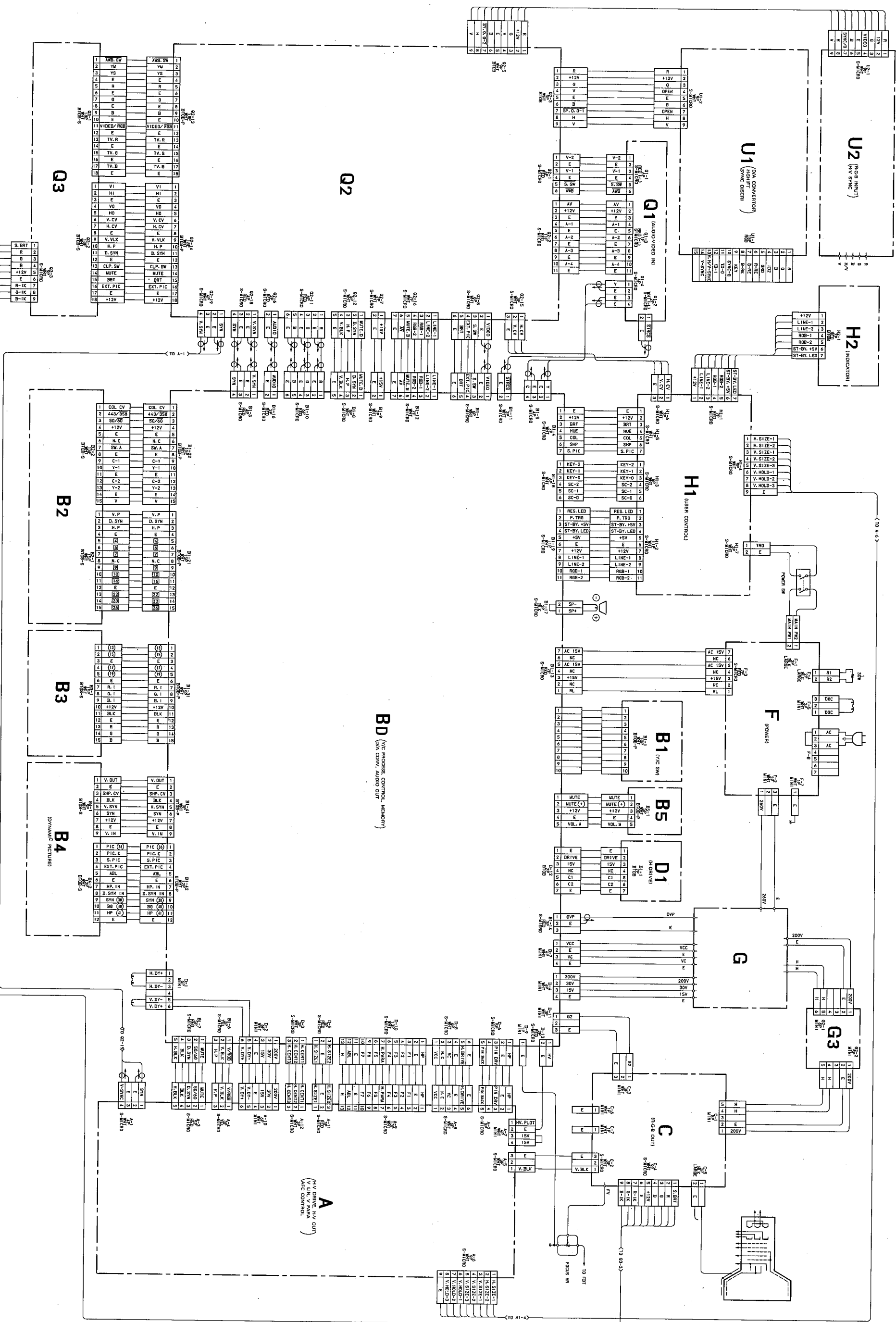
If Hsync amplitude is 0.3 V (negative) except sync on green, set their SW (S3002, S3003, S3004) to side B.

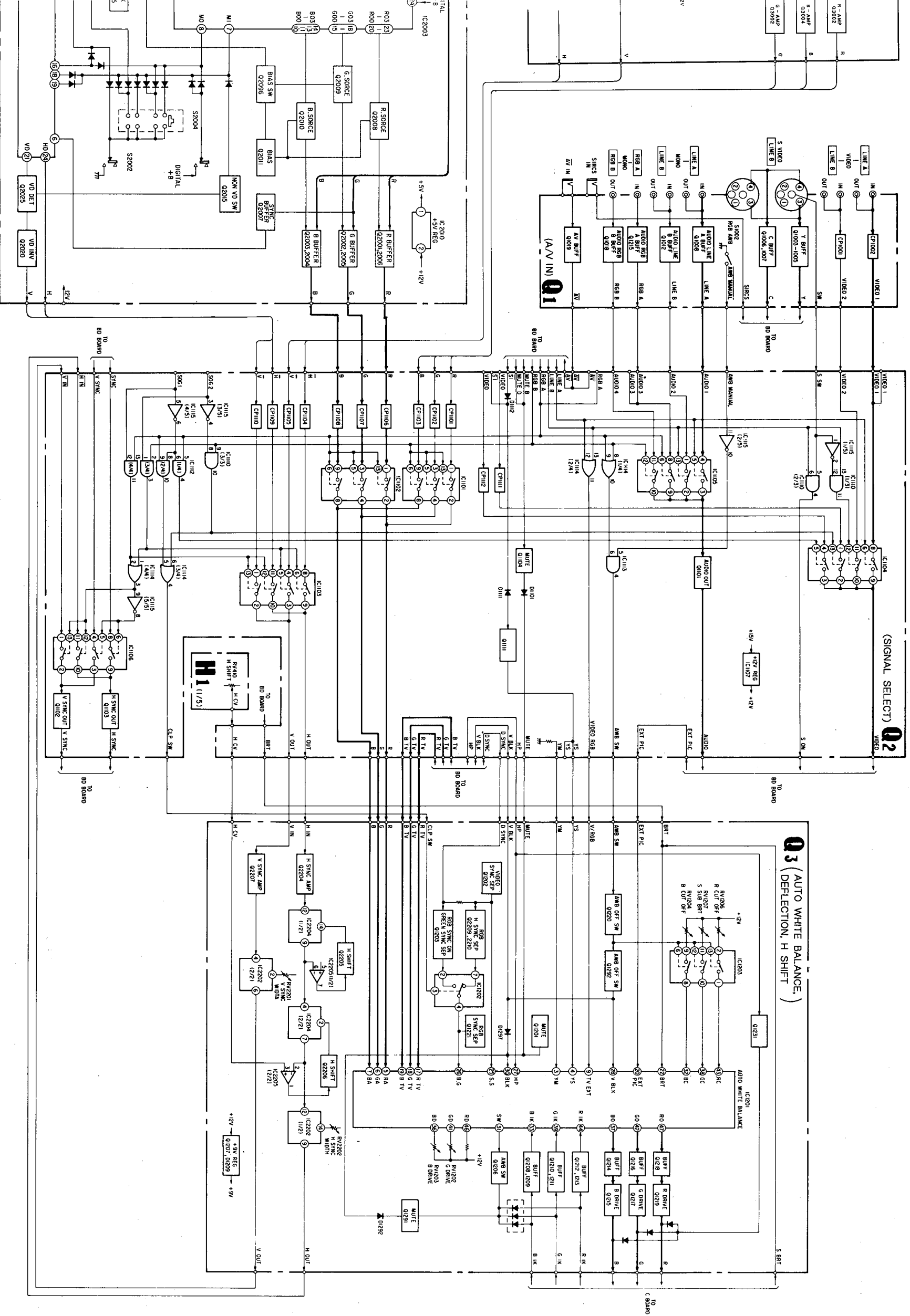
### RGB signal level Adjustment

1. Connect an oscilloscope to ③ pin of U2-1 connector and green signal inlet of RGB-B.
2. Input Analog RGB signal to RGB-B inlet.  
0.7Vp-p 75  $\Omega$  termination  
H/V separate sync or H/V composite sync  
Color Bar.
3. By turning RV3002, make same amplitude ③ pin of U2-1 connector (output green signal) and an input green signal.

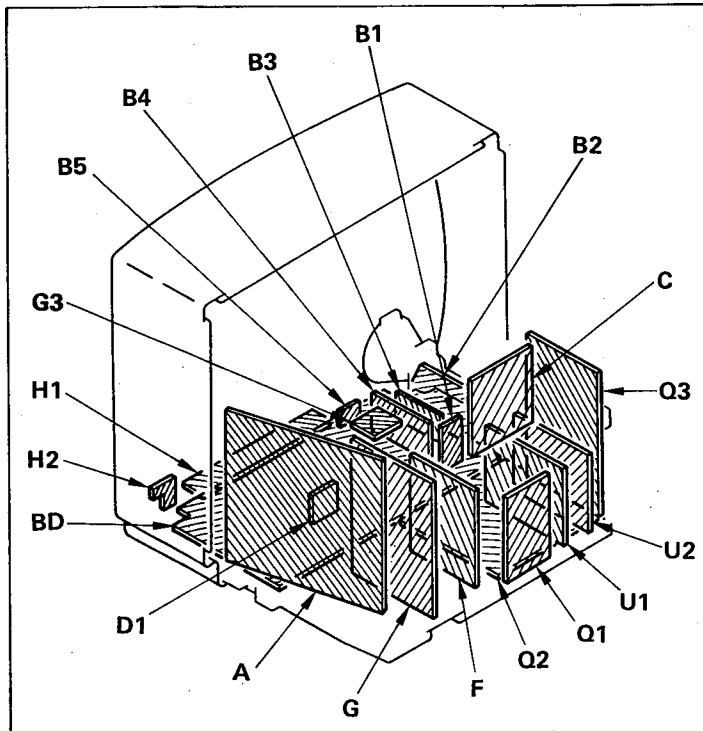
## DIAGRAMS

### 6-1. FRAME SCHEMATIC DIAGRAM





## 6-2. CIRCUIT BOARDS LOCATION



Part replaced (■)	Adjustment (☒)
IC1503, D1503, D2505, R549, R1522, R1523, R1524, R1525, R1526, R1527, R1564, R1565, R1566, R2503, R3545, R3546, R3547, R4542	R1523 (HOLD-DOWN)
IC621, Q2509, D2502, C625, C638, C639, C675, C677, L650, R620, R626, R628, R643, R2532, R2533, R2534, R2535, R2536, R2537, R2538, R2539, R2540, R2541, R2542, R2543, R2544, R2545, R2546, R2551, R2552, R2555, T621, T622	R2543 (B+ MAX)
IC501, IC2502, IC2503, D2506, C2505, C2564, R2554, R2555, R2556, R2558, R2559	R2555 (RGB SYSTEM F-V CONFIRMATION)
IC2507, Q2528, D2522, C2542, R3546, R3549, R3579, R3586, R3587	R3546 (SWITCHING POINT)
IC2512, R2543, R3546, R3580, R3581, R3589	R3589 (VIDEO F-V)

## Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm  
Rating electrical power  $\frac{1}{4}$  W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- $\Delta$  : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R1523, R2543, R2555, R3546 and R3589 adjust on page 13 and 14.)
- When replacing the part in below table, be sure to perform the related adjustment.
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10  $\text{M}\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- : B + bus.
- : B - bus.
- : signal path.

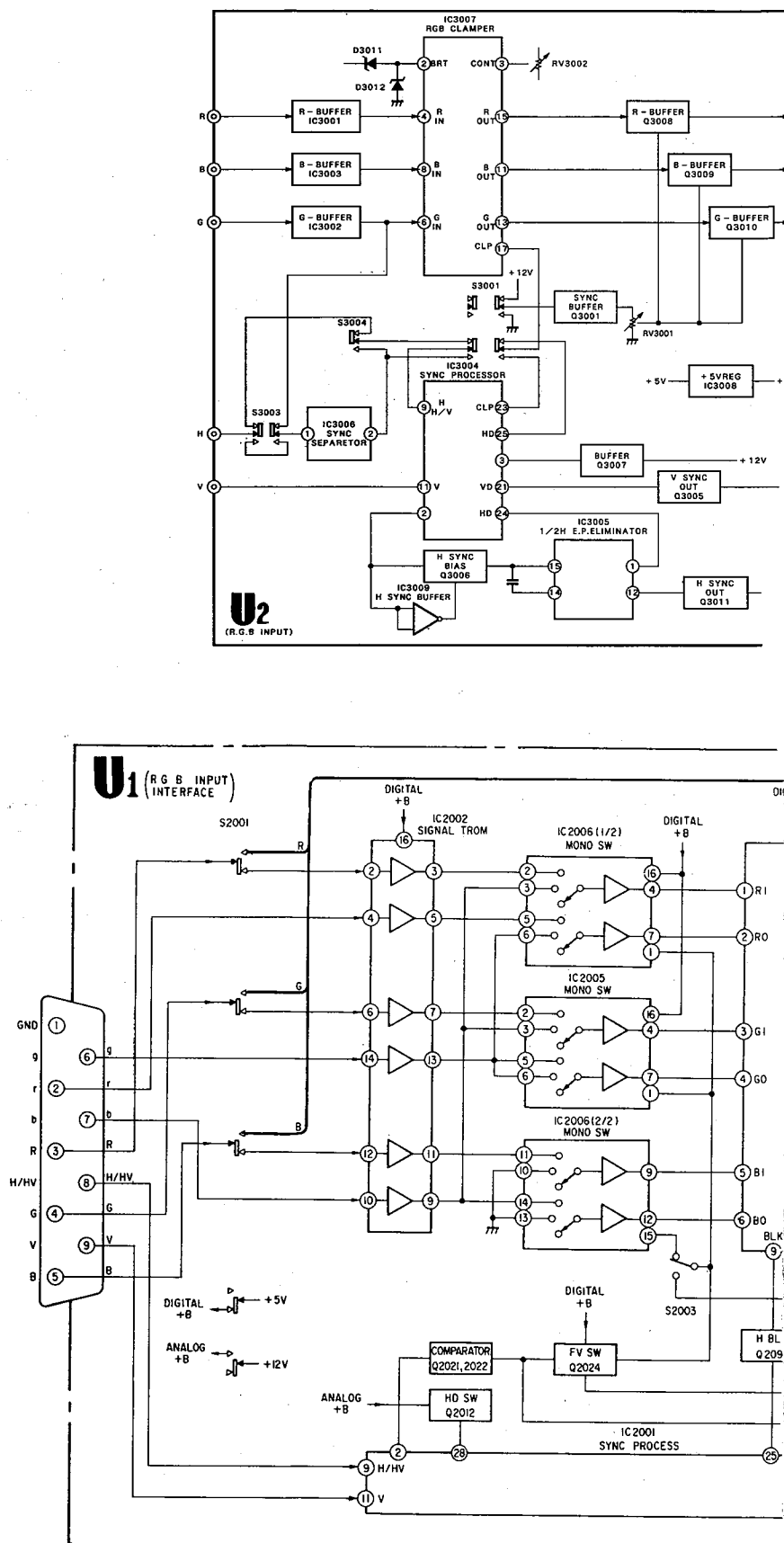
## Reference information

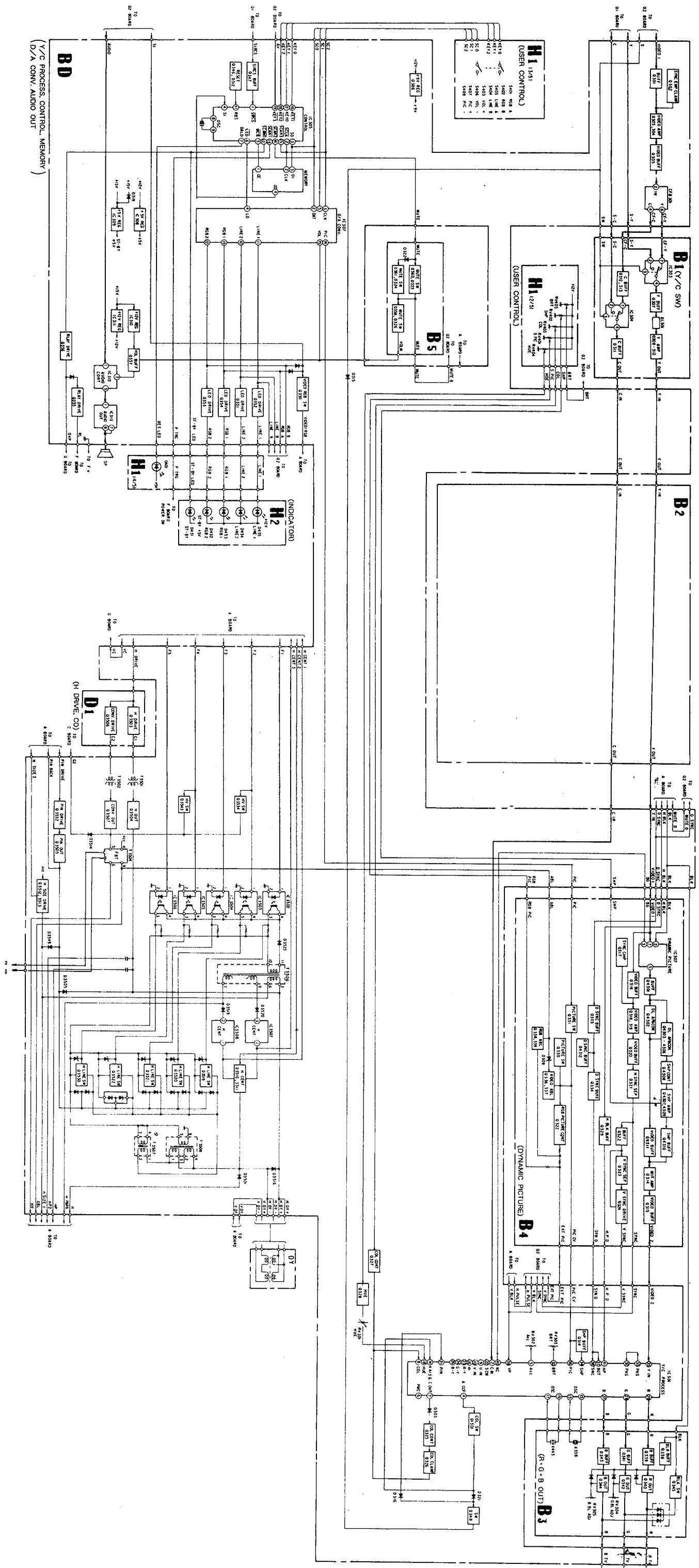
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

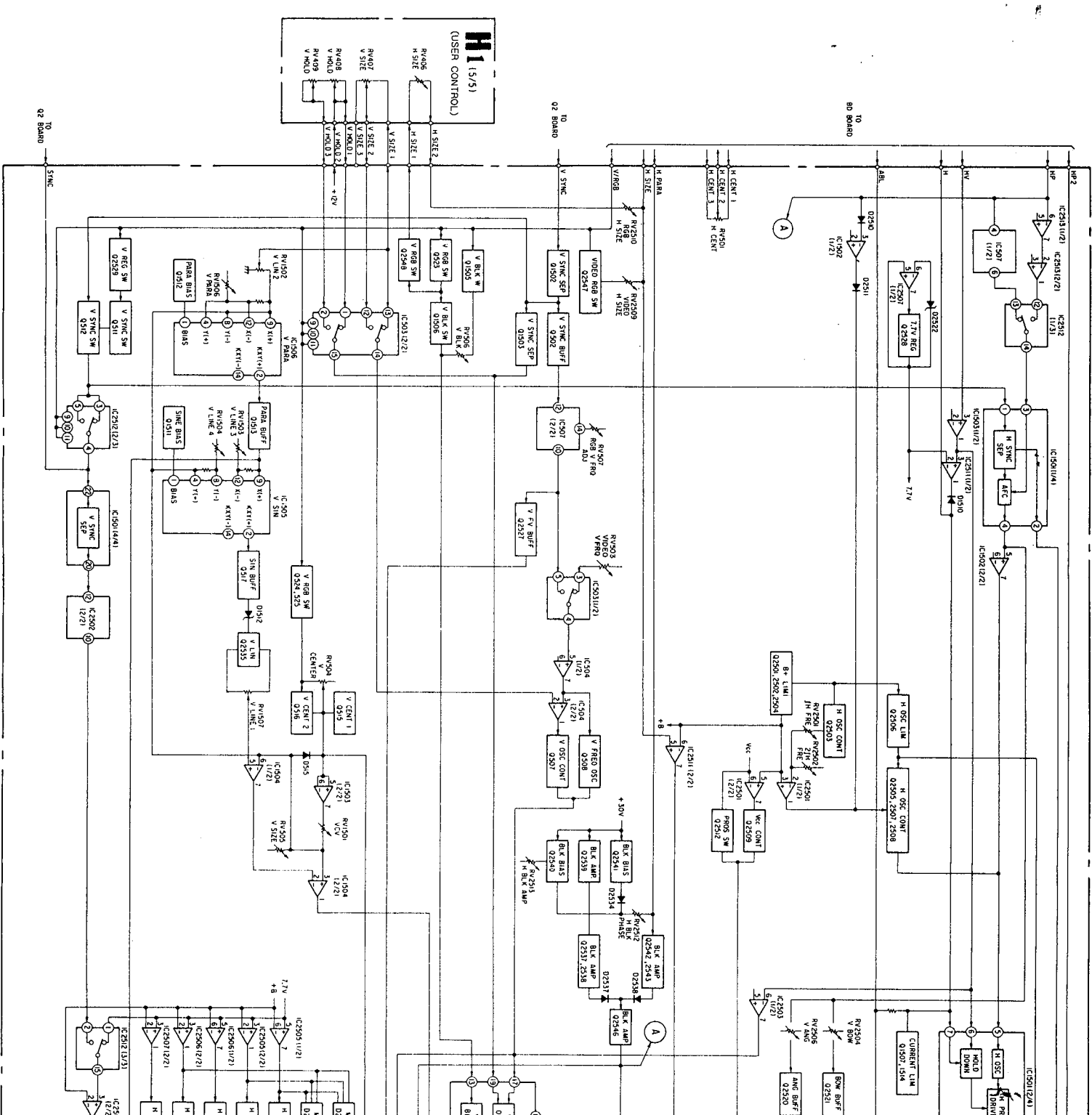
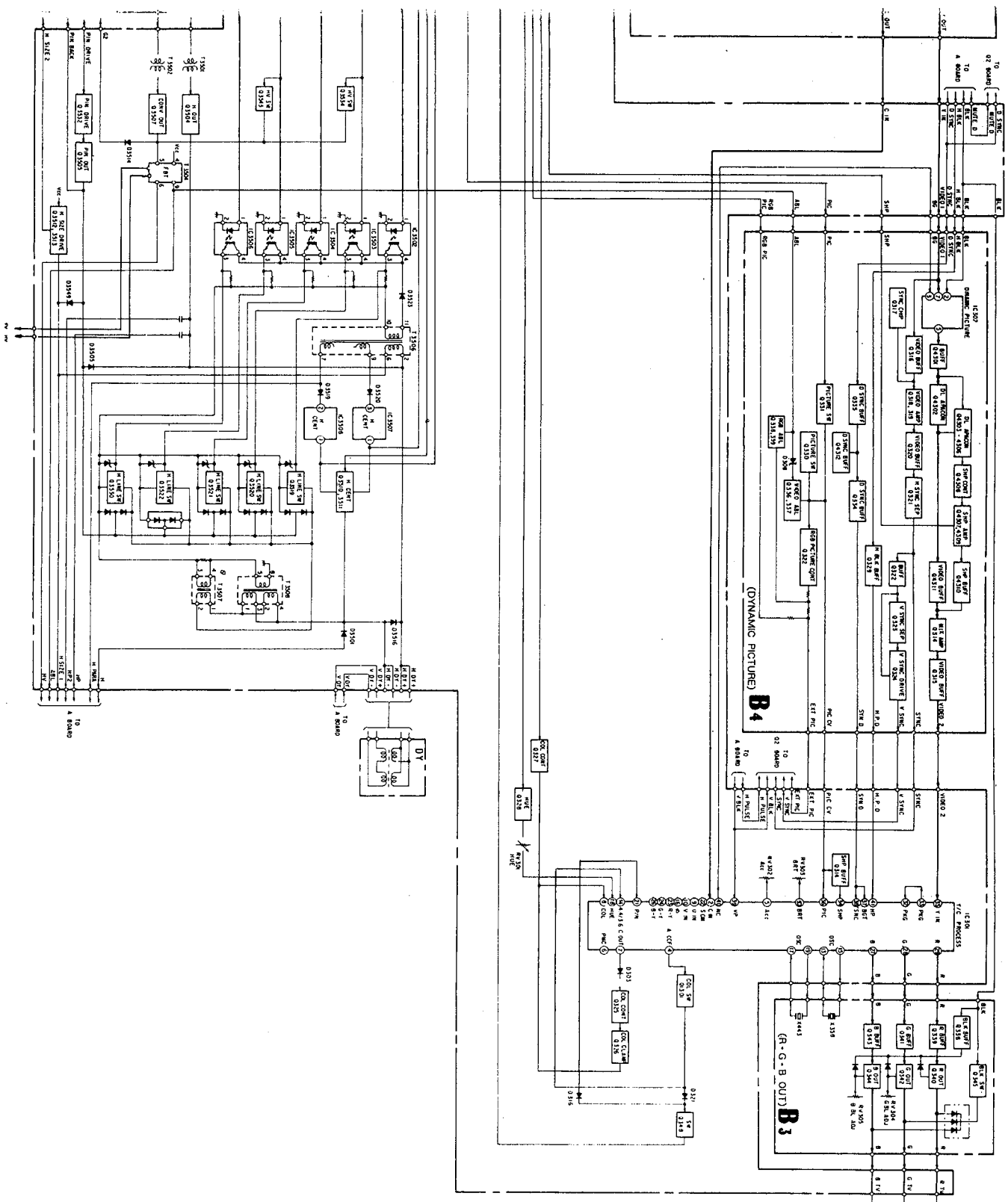
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

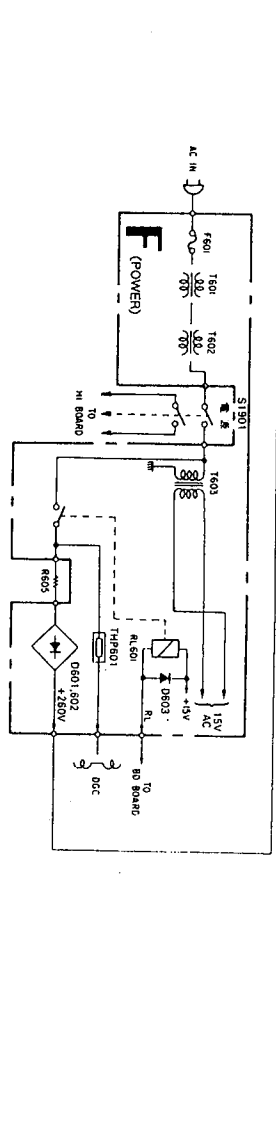
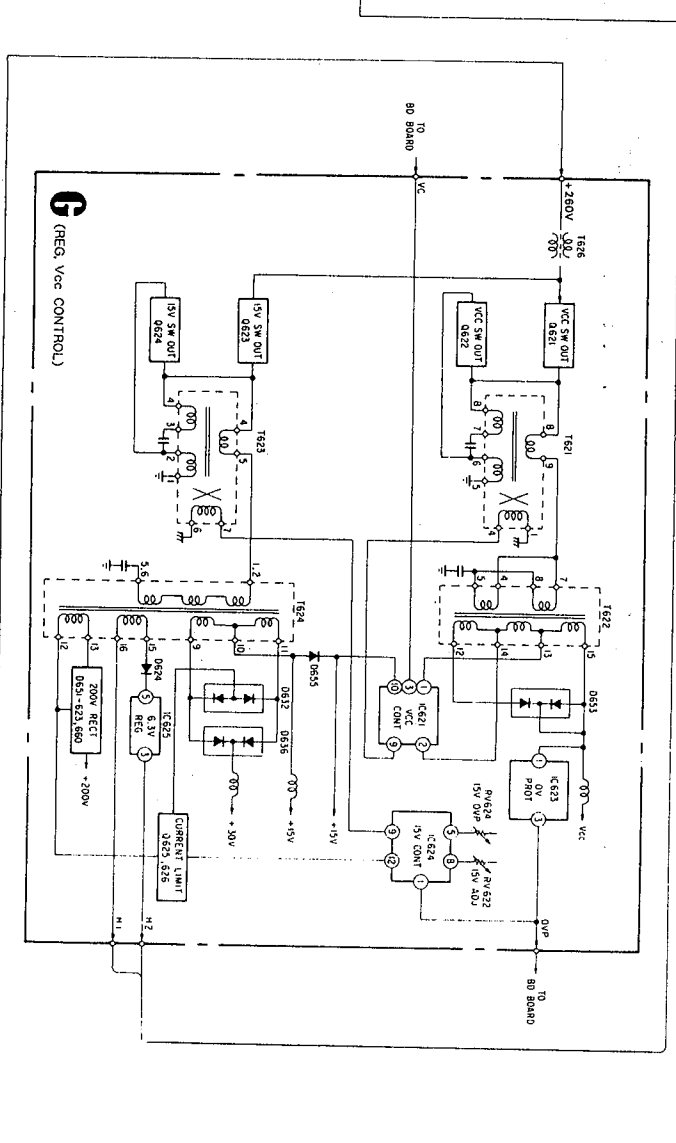
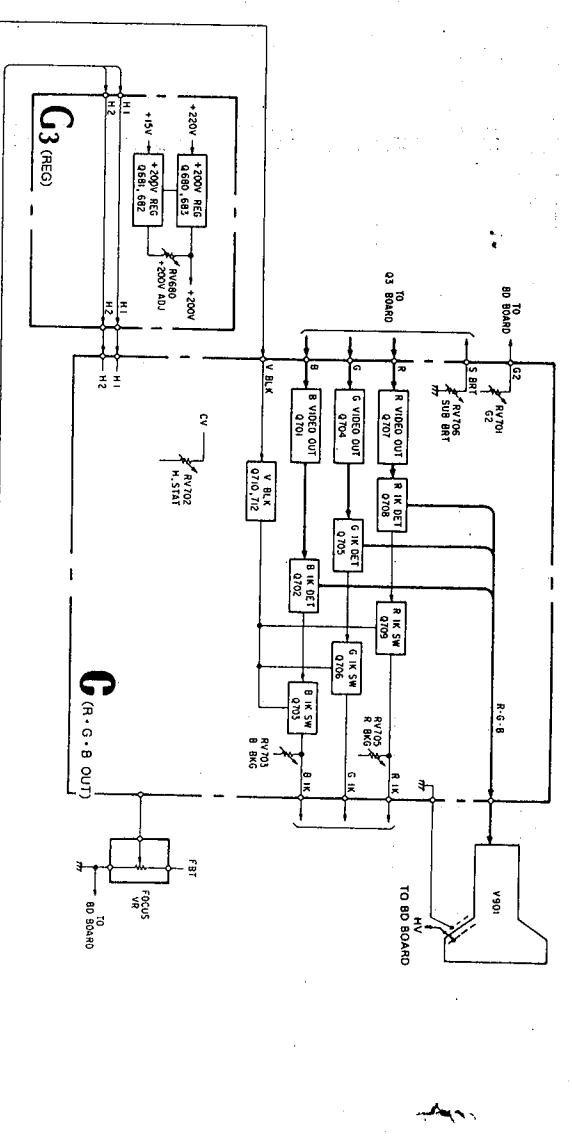
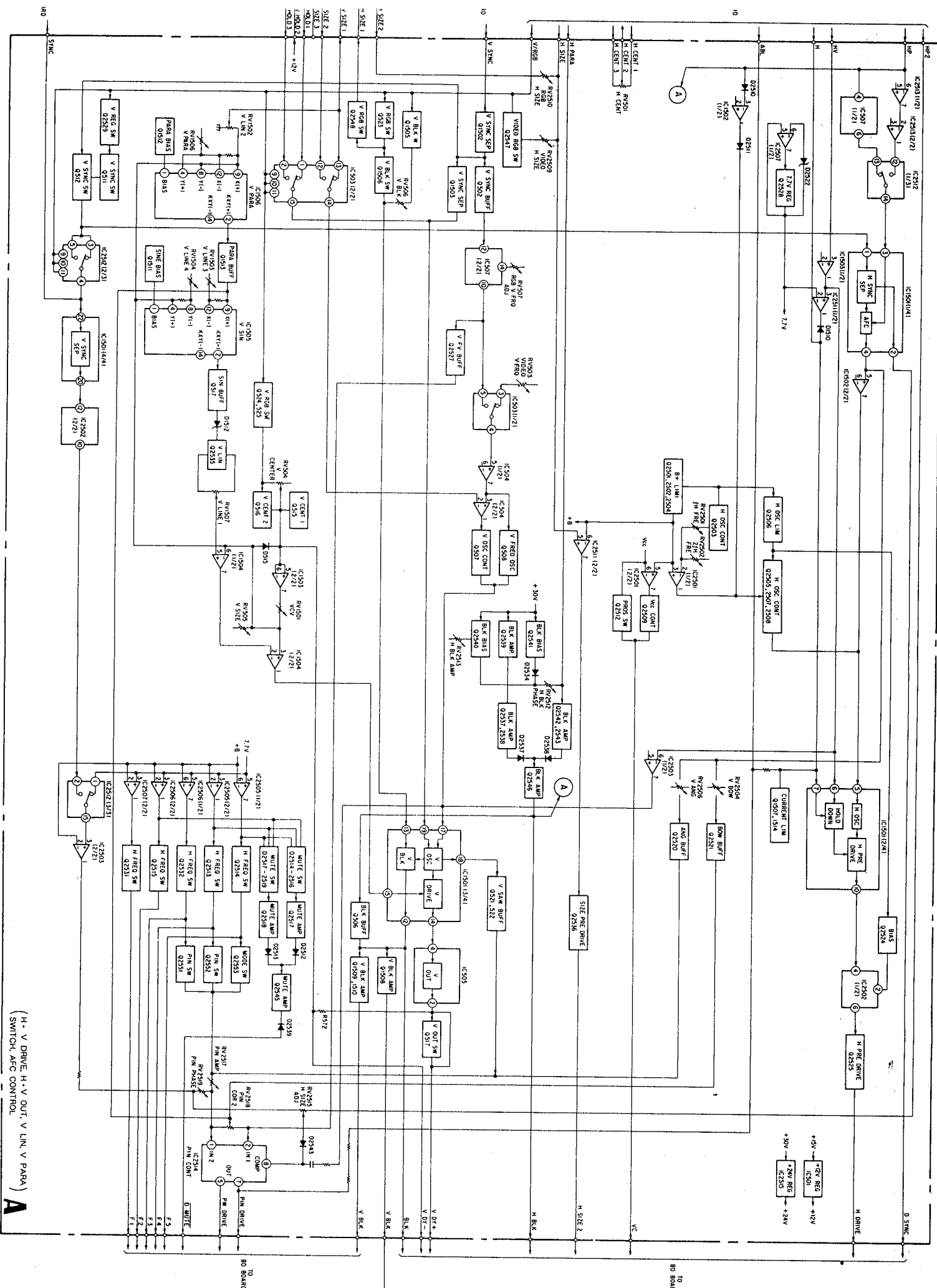
## 6-3. BLOCK DIAGRAM (1)





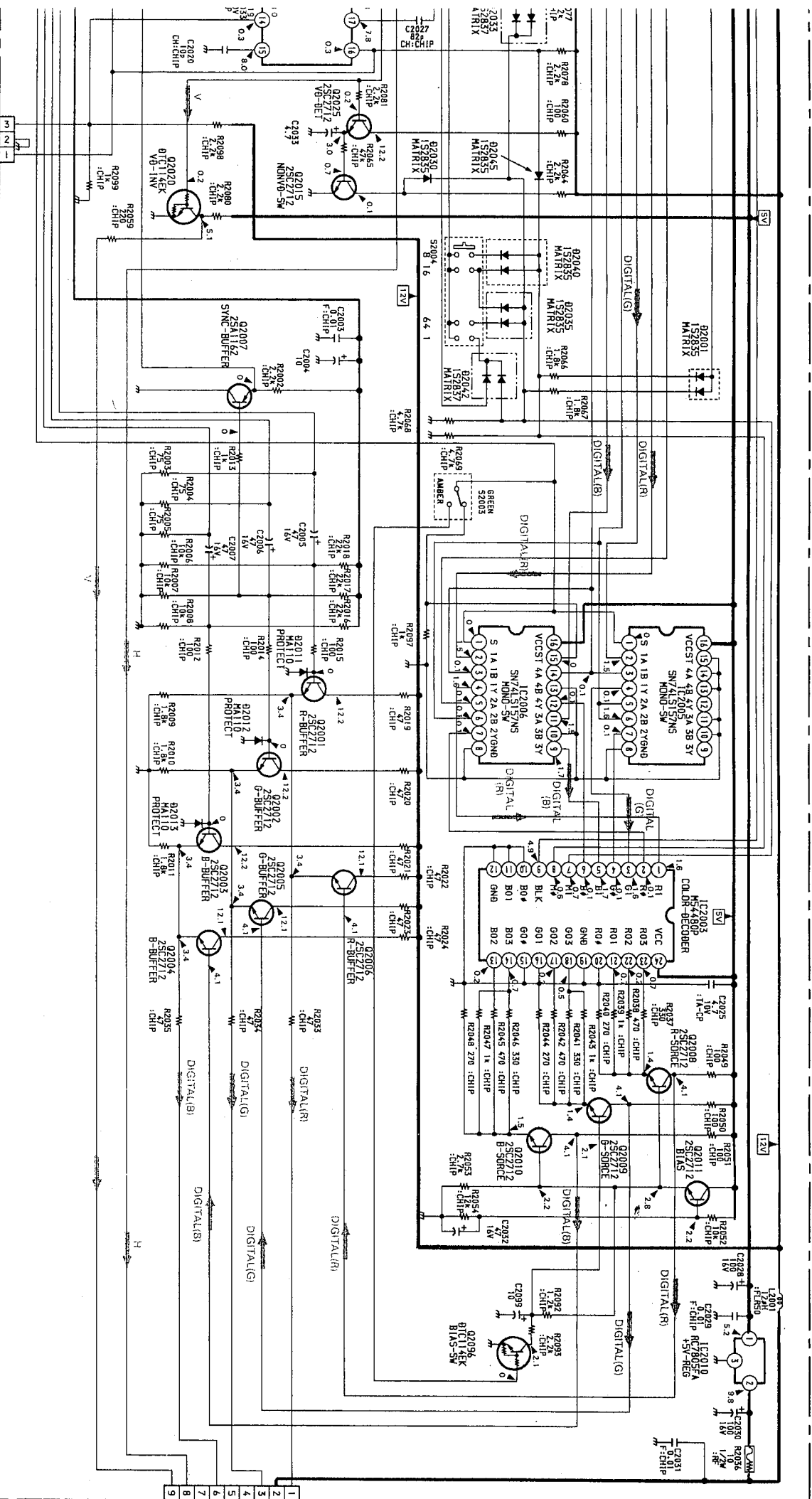






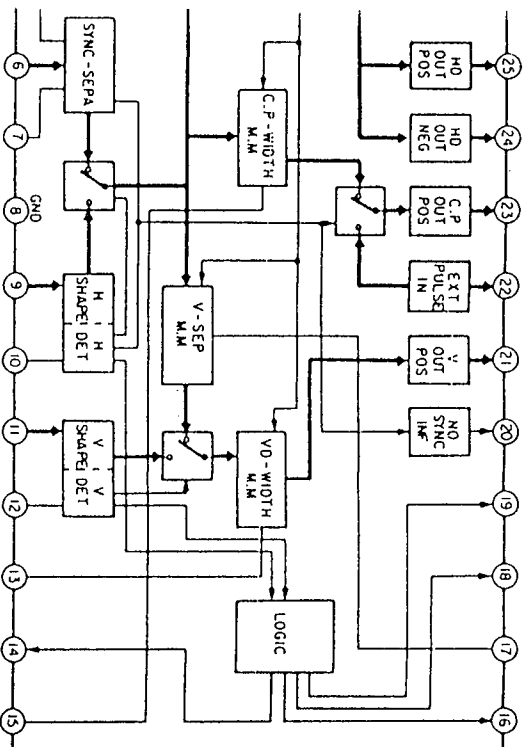


10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

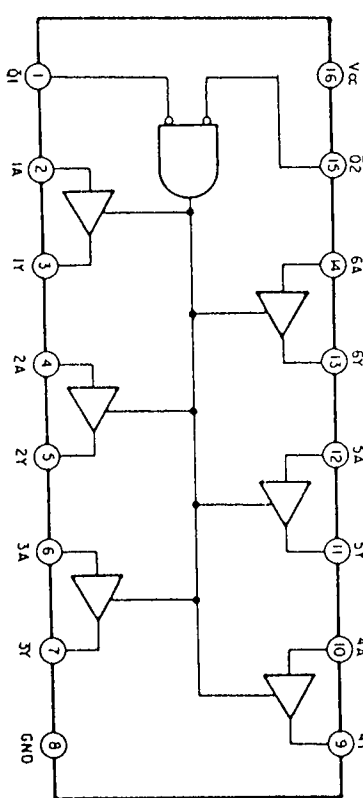


365ANS

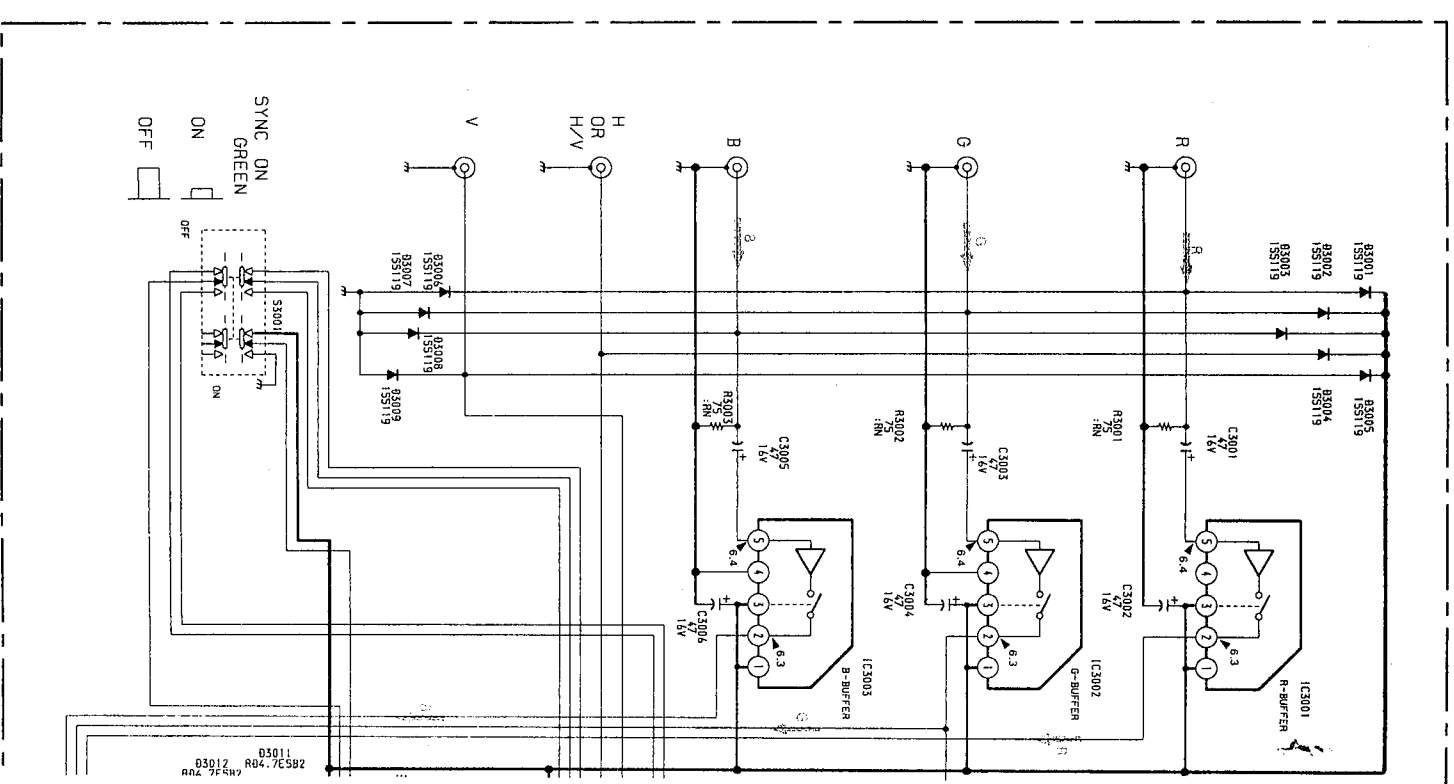
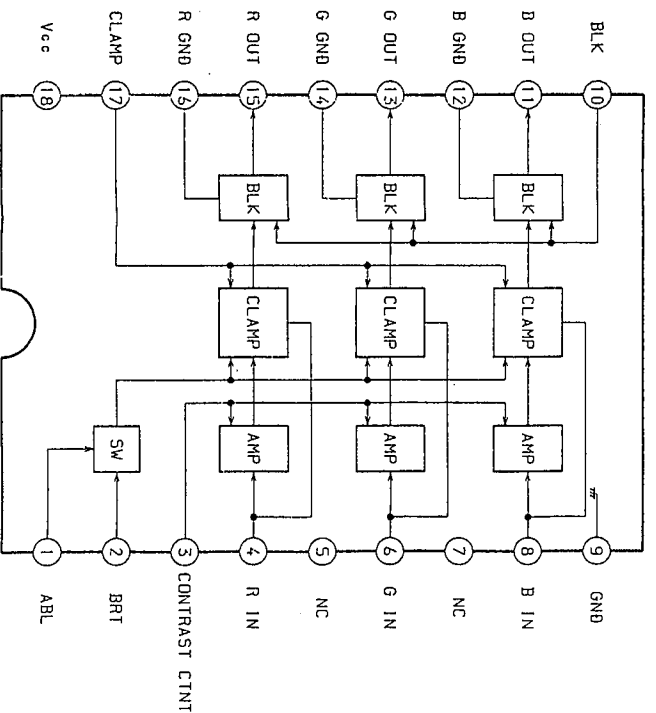
TO BD BOARD  
D-28



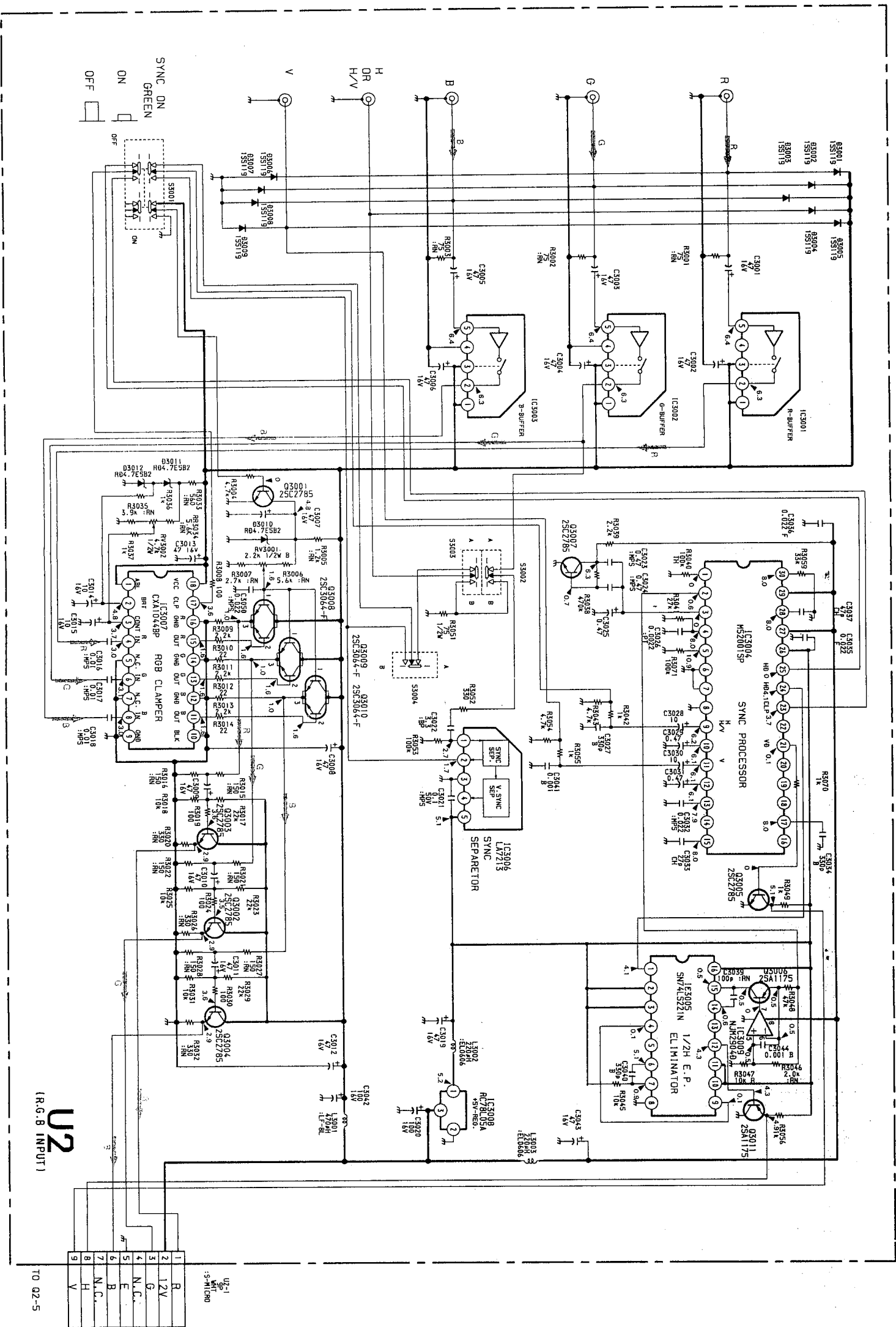
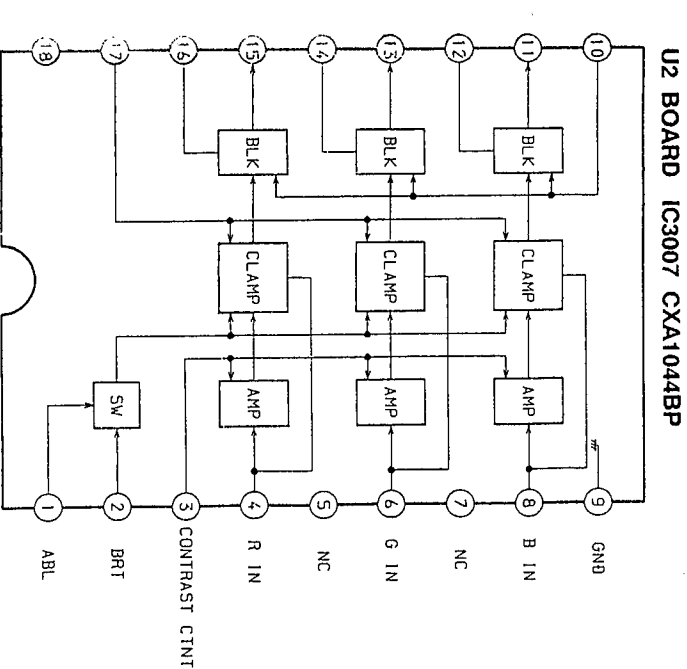
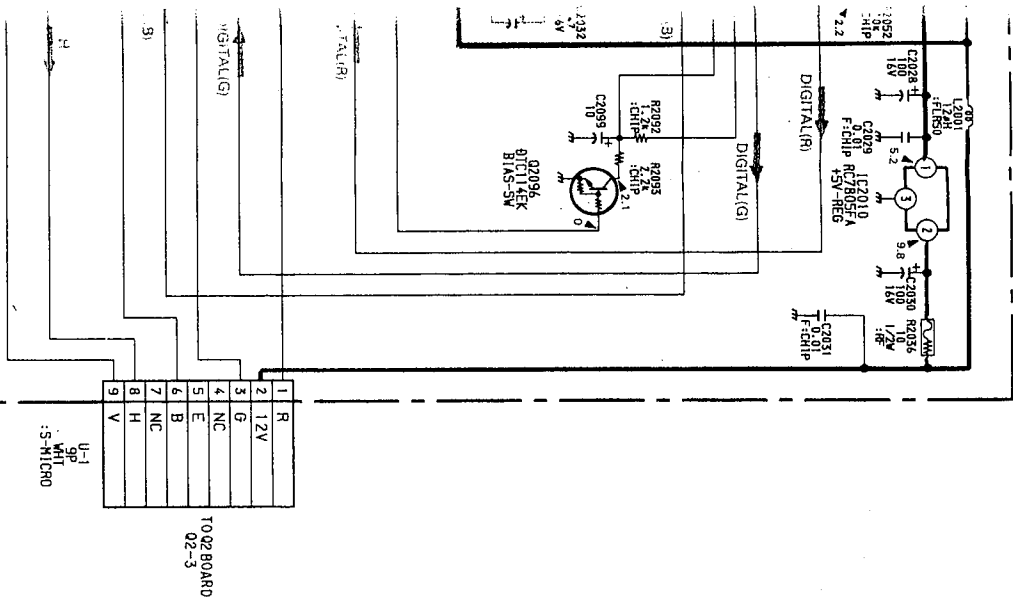
U1 BOARD IC2001 MS2001SP



U2 BOARD IC3007 CXA1044BP

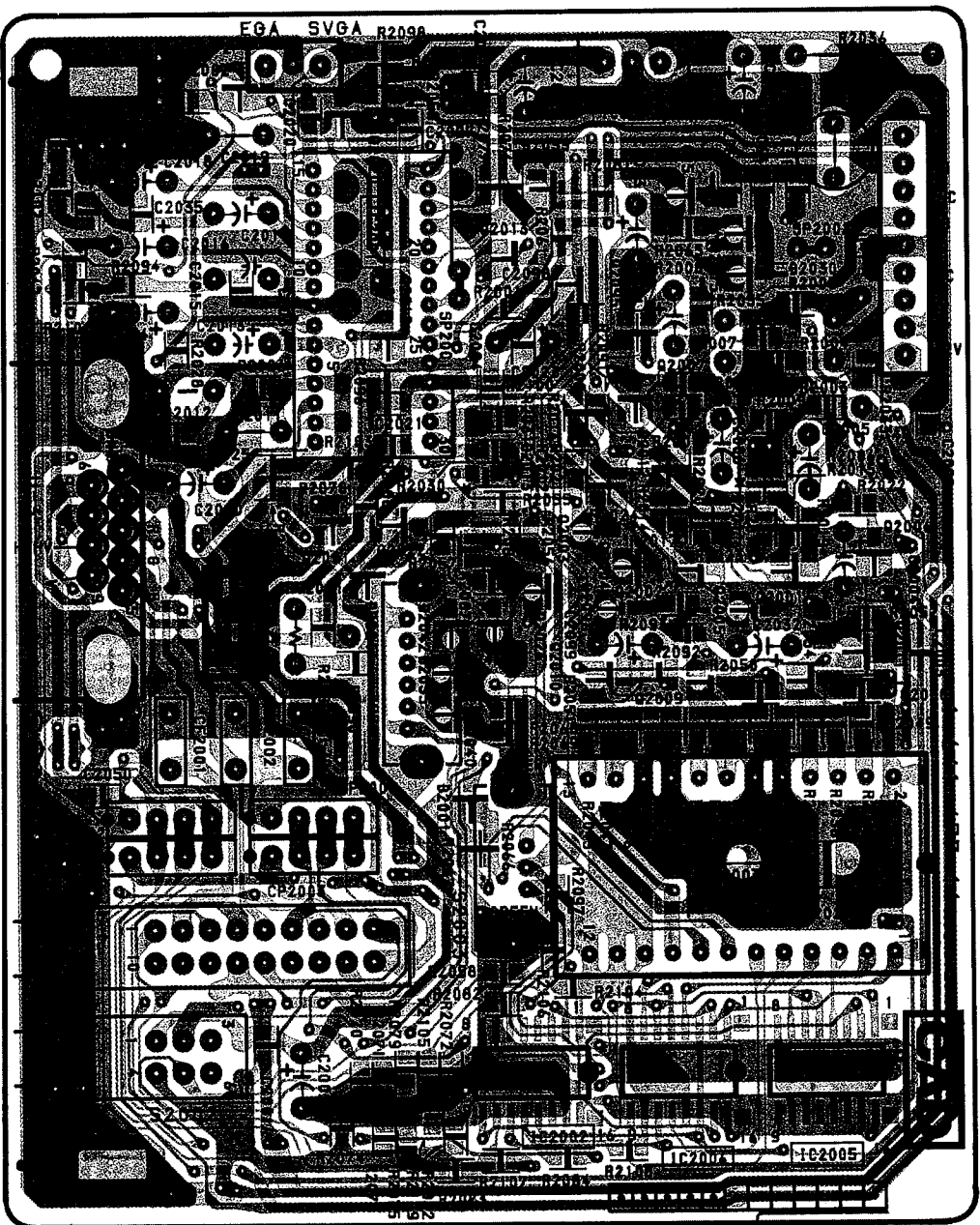


19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34



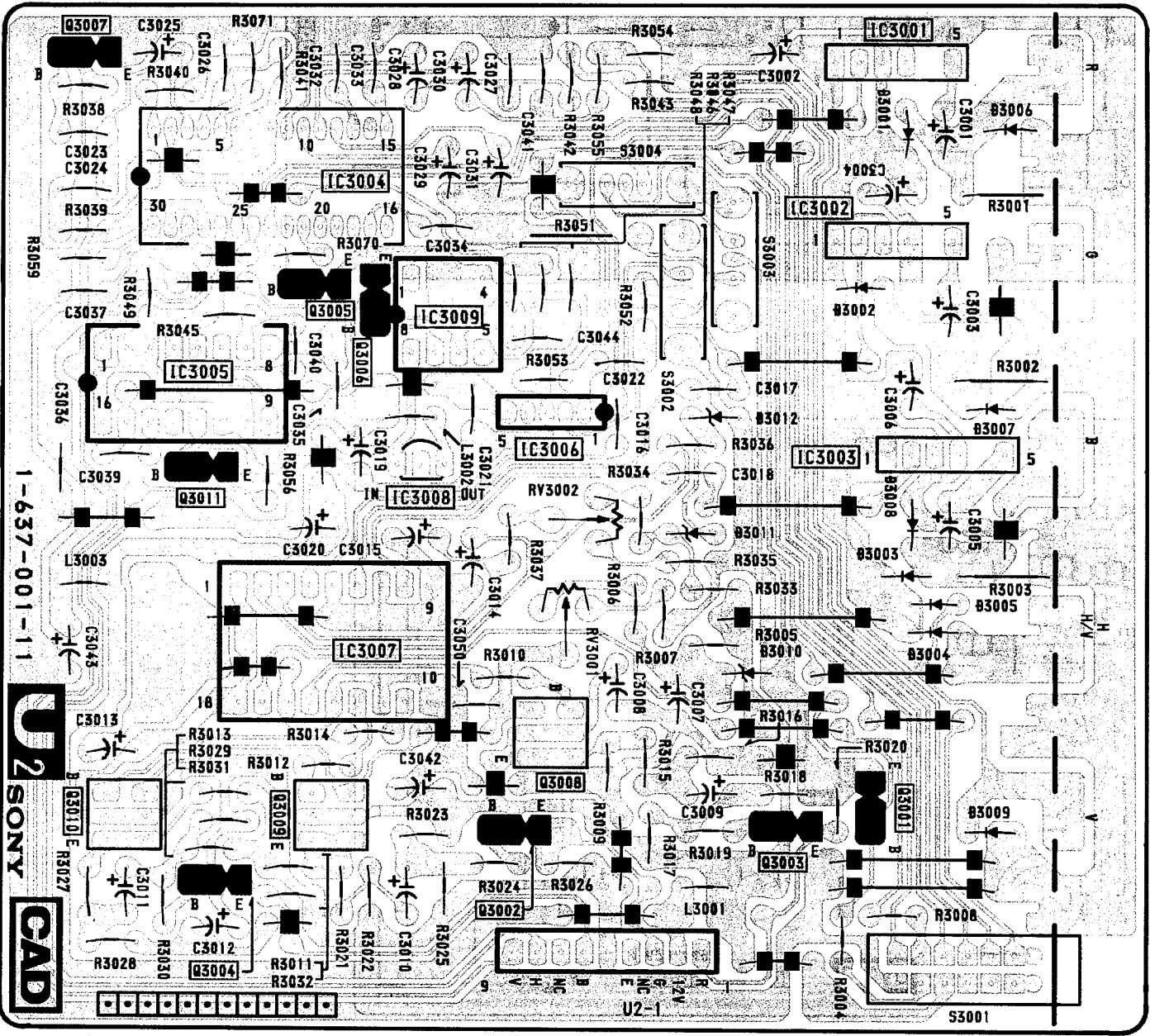
U1  
[D/A CONV. H·V SHIFT]  
[DIGITAL RGB OUT]  
[MODE SELECT]

— U1 Board —



U2  
[H SYNC, V SYNC]

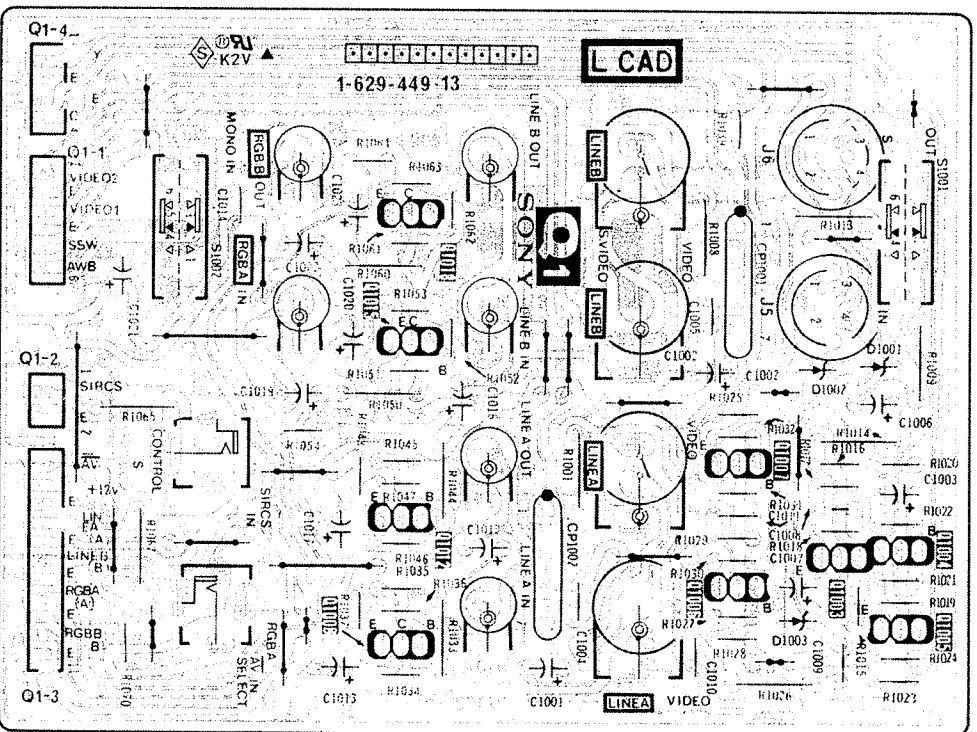
— U2 Board —



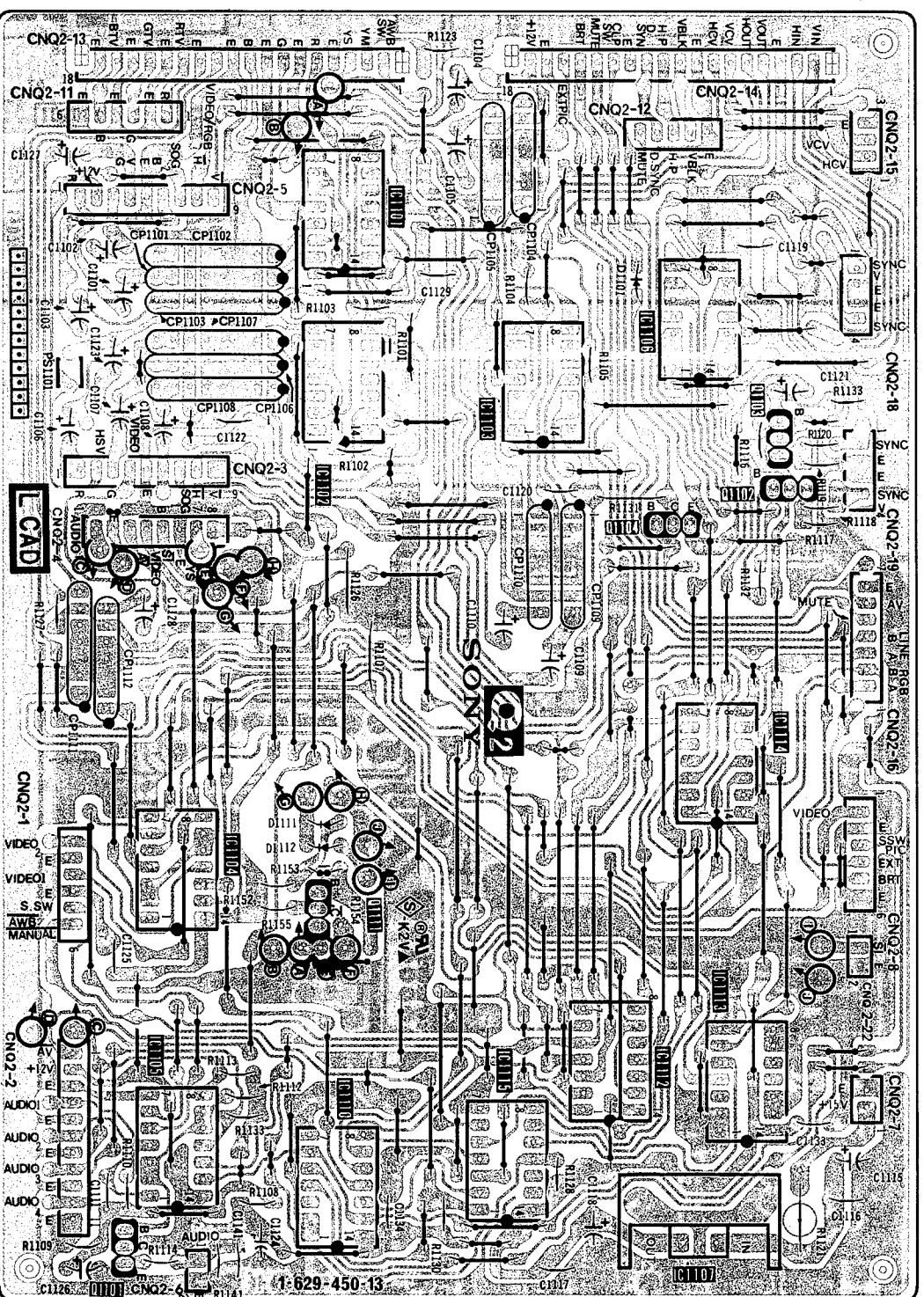


[TV IN, A IN]

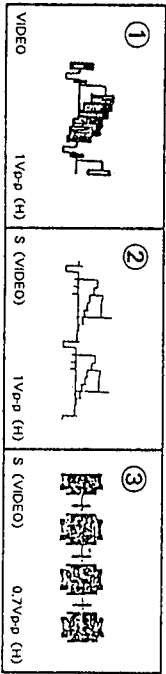
## Q1 Board –

[**SIGNAL SELECT**]

## Q2 Board

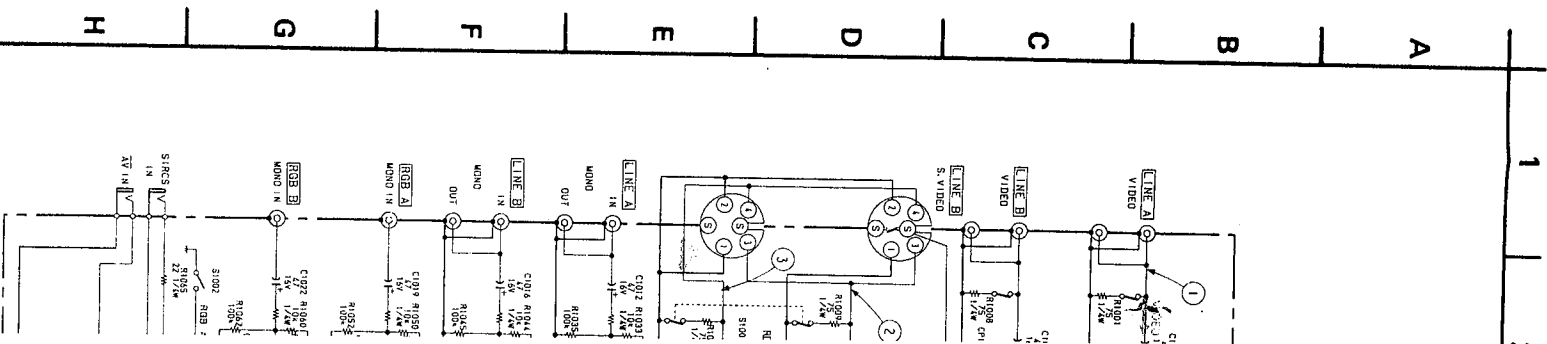


Q1 BOARD WAVEFORMS



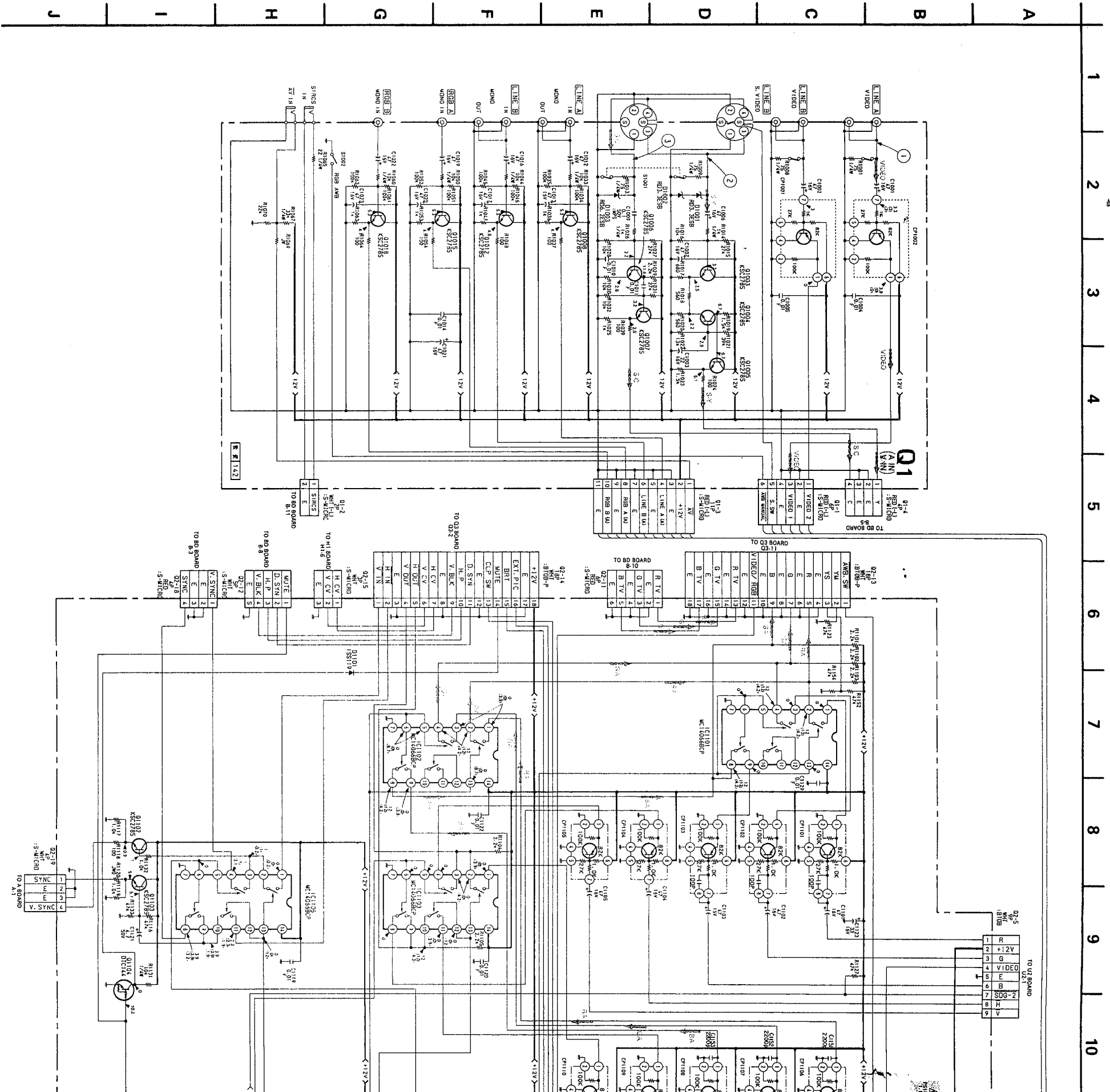
Q1		
Q1003	2SC2785-F	Y. BUFF1
1004	2SC2785-F	Y. BUFF2
1005	2SC2785-F	Y. BUFF3
1006	2SC2785-F	C. BUFF1
*007	2SC2785-F	C. BUFF2
1008	2SC2785-F	AUDIO LINE A BUFF
1012	2SC2785-F	AUDIO LINE B BUFF
1015	2SC2785-F	AUDIO RGB A BUFF
1018	2SC2785-F	AUDIO RGB B BUFF
D1001	RD3.3ESB	PROTECTOR
1002	RD3.3ESB	PROTECTOR
1013	RD6.2ESB	PROTECTOR

Q2		
IC1101	μPD4066BC	RGB-B SW
1102	μPD4066BC	RGB-A SW
1103	μPD4066BC	RGB SYNC SW
1104	μPD4066BC	VIDEO SW
1105	μPD4066BC	AUDIO SW
1106	μPD4066BC	SYNC SW
1107	μPC7812H	+12V REG
1110	μPD4081BC	MODE SELECT SW1
1112	μPD4081BC	MODE SELECT SW4
1113	μPD4081BC	MODE SELECT SW5
1114	μPD4071BC	MODE SELECT SW3
1115	μPD4069BC	MODE SELECT SW2
Q1101	2SC2785	AUDIO OUT
1102	2SC2785	V. SYNC OUT
1103	2SC2785	H. SYNC OUT
1104	DTIC144	MUTE
D1101	1SS119	MUTE

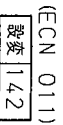


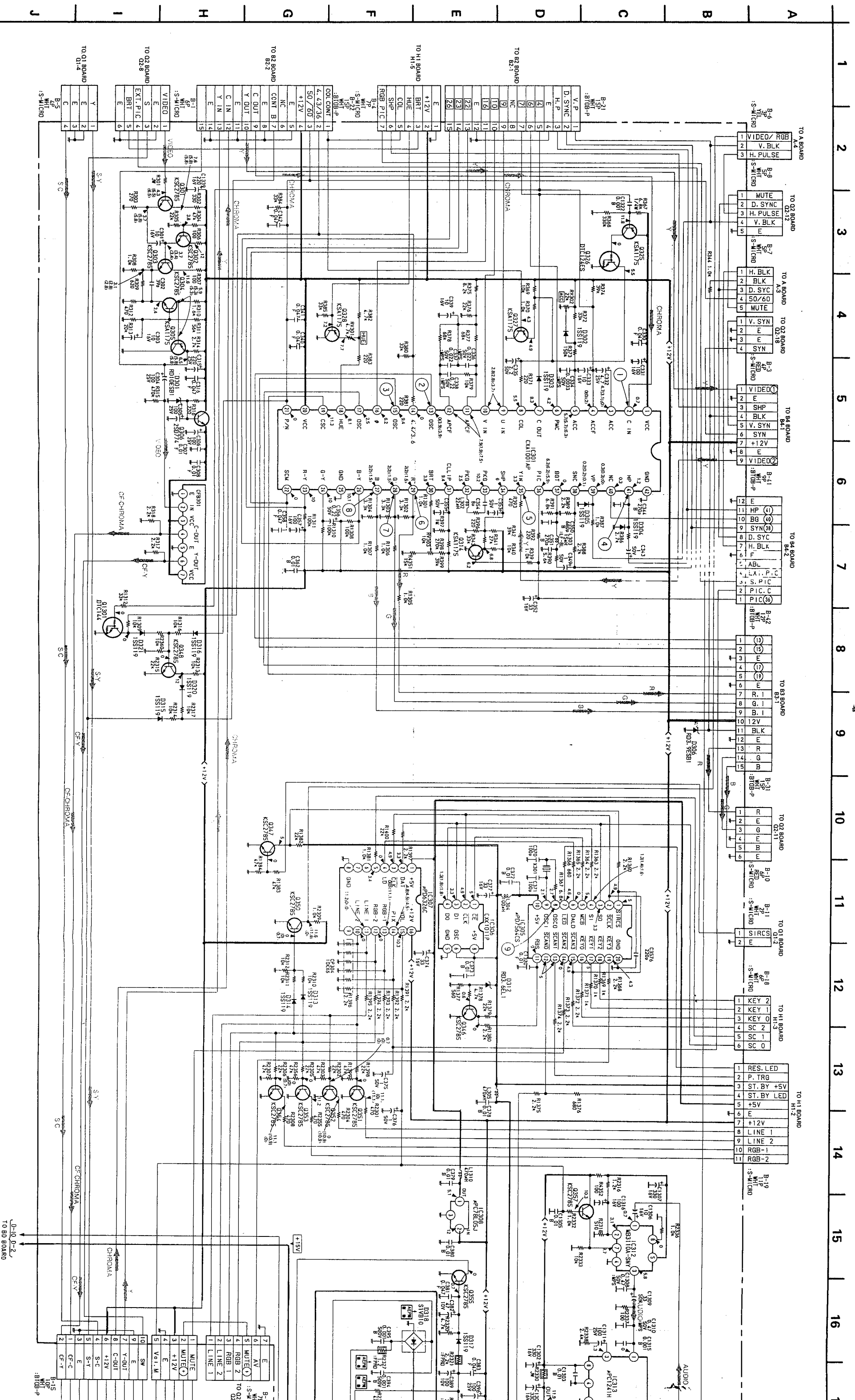
Q1003	2SC2785-F	V. BUFE1
1004	2SC2785-F	Y. BUFE2
1006	2SC2785-F	Y. BUFE3
1006	2SC2785-F	C. BUFE1
1007	2SC2785-F	C. BUFE2
1008	2SC2785-F	AUDIO LINE A BUFE
1012	2SC2785-F	AUDIO LINE B BUFE
1015	2SC2785-F	AUDIO RGB A BUFE
1018	2SC2785-F	AUDIO RGB B BUFE
D1001	RD3.3ESB	PROTECTOR
1002	RD3.3ESB	PROTECTOR
1013	RD6.2ESB	PROTECTOR

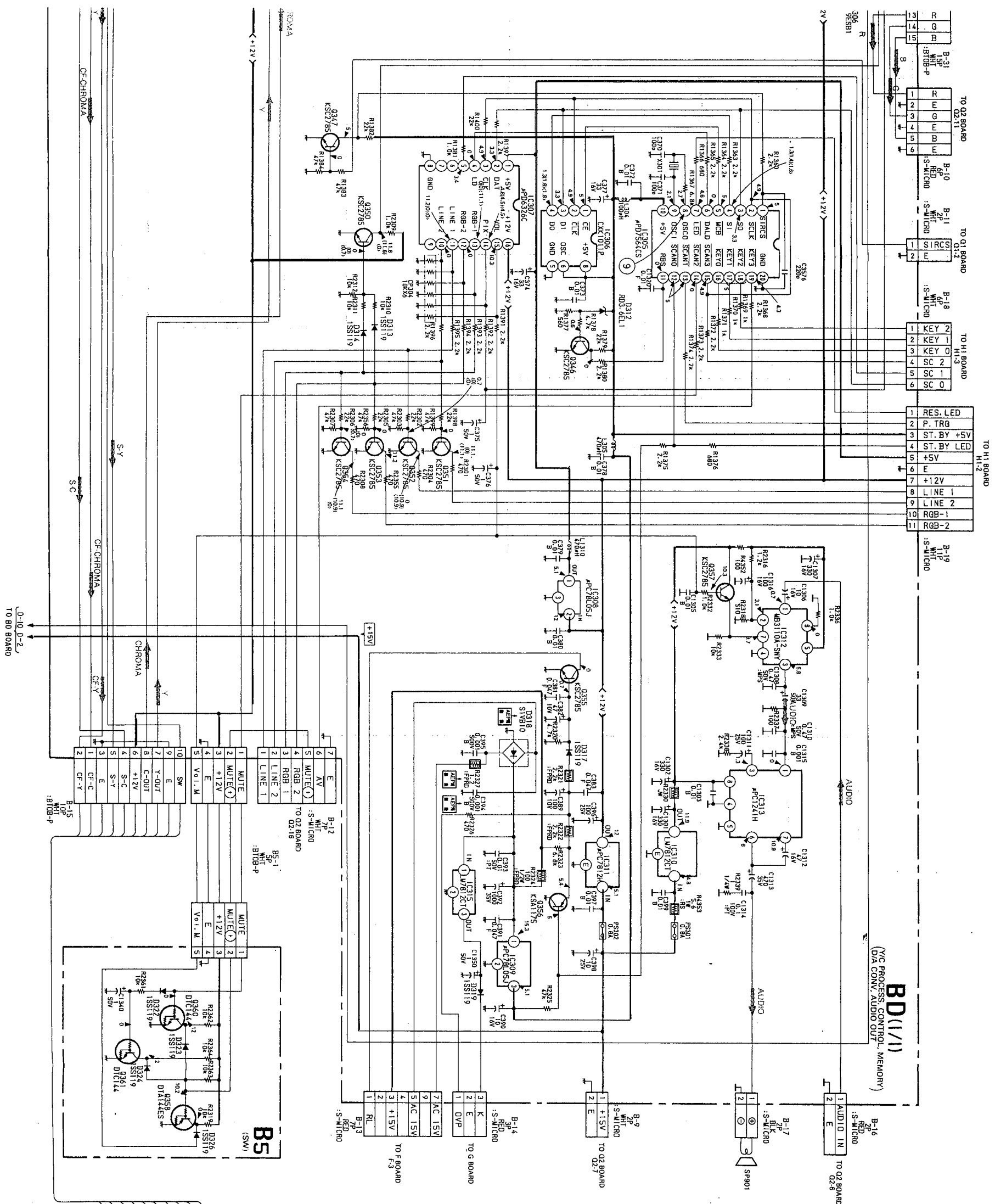
IC1101	μPD4086BC	RGB-B SW
1102	μPD4086BC	RGB-A SW
1103	μPD4086BC	RGB SYNC SW
1104	μPD4086BC	VIDEO SW
1105	μPD4086BC	AUDIO SW
1106	μPD4086BC	SYNC SW
1107	μPC7812H	+12V REG
1110	μPD4081BC	MODE SELECT SW1
1112	μPD4081BC	MODE SELECT SW4
1113	μPD4081BC	MODE SELECT SW5
1114	μPD4071BC	MODE SELECT SW3
1115	μPD4089BC	MODE SELECT SW2
Q1101	2SC2785	AUDIO OUT
1102	2SC2785	V. SYNC OUT
1103	2SC2785	H. SYNC OUT
1104	DTIC144	MUTE
D1101	1SS119	MUTE





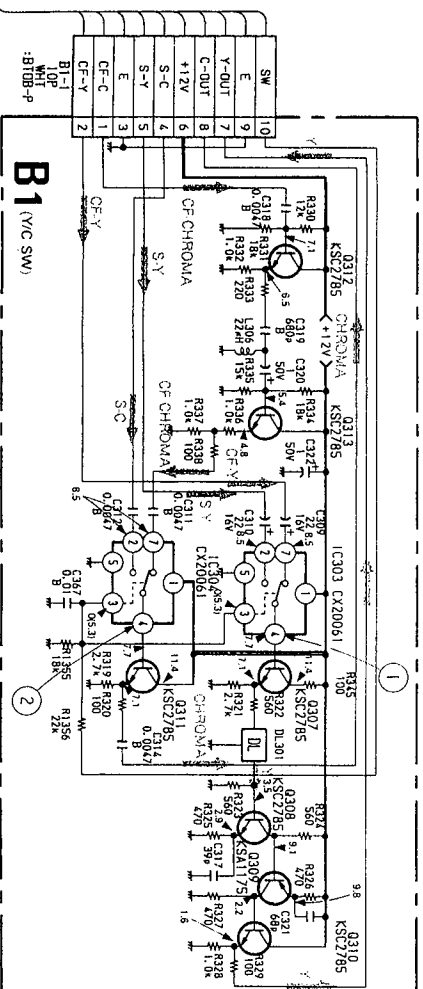


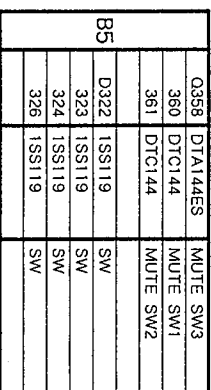
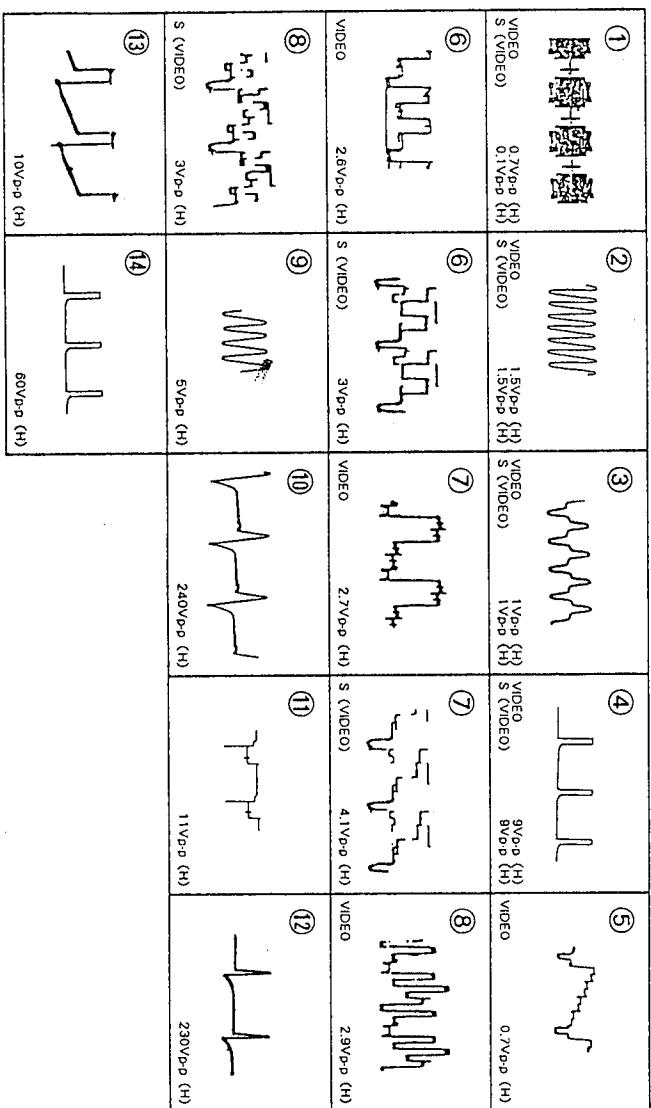
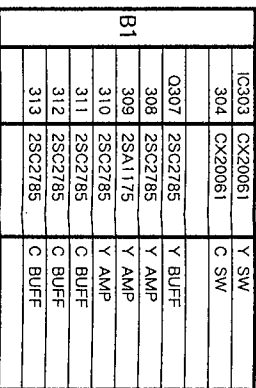




	D358	DTA14AES	MUTE SW3
	360	DTCI14	MUTE SW1
	361	DTCI14	MUTE SW2
B5	D322	1SS119	SW
	323	1SS119	SW
	324	1SS119	SW
	326	1SS119	SW

IC301	CXA1001AP	V/C PROCESS	3521	2S
305	μP07564DS	CONTROLLER	3522	2S
306	CKK1011P	MEMORY	3520	2S
307	μP0632BC	D/A CONV	3522	2S
308	μPC178L05J	5V REG	3534	2S
309	μPC178L05J	5V REG	3543	2S
310	μPC178MH12H	12V REG		
311	μPC178MH12H	12V REG	D301	1C
312	MB3110A-SNY	AUDIO CONT	302	1S
313	μPC1241H	AUDIO OUT	303	1S
315	MSF76M12	+12V REG	304	1S
3502	PC8177C	SW CONTROL1	305	1S
3503	PC8177C	SW CONTROL2	306	1C
3504	PC8177C	SW CONTROL3	312	1C
3505	PC8177C	SW CONTROL4	313	1S
3506	PC8177C	SW CONTROL5	314	1S
3507	PC178M05A	+ 6V REG	315	1S
3508	PC178M05A	- 5V REG	316	1S
			317	1S
		BUFF	318	51
Q301	2SC2785	SYNC EHP CLAMP	319	1S
302	2SC2785	VIDEO AMP	320	1S
303	2SC2785	VIDEO AMP	320	1S
304	2SC2785	VIDEO AMP	321	1S
305	2SA1175	VIDEO BUFF	3501	1C
306	2SD774	9V REG	3505	EF
314	2SA1175	SHP BUFF	3506	FN
325	2SA1175	COL CONT	3514	RC
326	DTIC124S	COL CLAMP	3516	RC
327	2SA1175	COL CONT	3519	V1
328	2SA1175	HUE	3520	1C
346	2SC2785	REST	3521	GF
347	2SC2785	SIFCS BUFF	3523	V1
348	2SC2785	SW	3524	V1
350	2SC2785	VIDEO RGB SW	3526	V1
351	2SC2785	LED DRIVE	3527	V1
352	2SC2785	LED DRIVE	3528	V1
353	2SC2785	LED DRIVE	3530	V1
354	2SC2785	LED DRIVE	3532	V1
355	2SC2785	RY DRIVE	3533	DE
356	2SA1175	RY DRIVE	3540	V1
357	2SC2785	VOL BUFF	3542	V1
1301	DTIC144	COL SW	3543	RC
3504	2SC3996	H. OUT	3544	RC
3505	2SC3298A	PIN OUT	3545	RC
3507	2SD1398-CA	CONVERTOR OUT	3546	RC
3510	2SD669	H. CENT1	3547	RC
3511	2SD649	H. CENT2	3549	V1
3512	2SD3296A	H. SIZE	3550	1S
3513	2SC2668	H. SIZE DRIVE	3551	EF
3519	2SK347	H. LIN SW10		
3520	2SK347	H. LIN SW11		



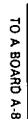
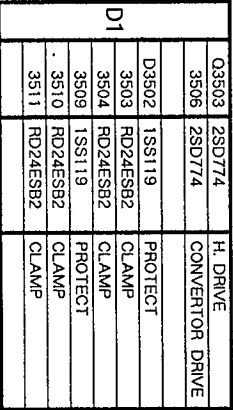
[illegible]

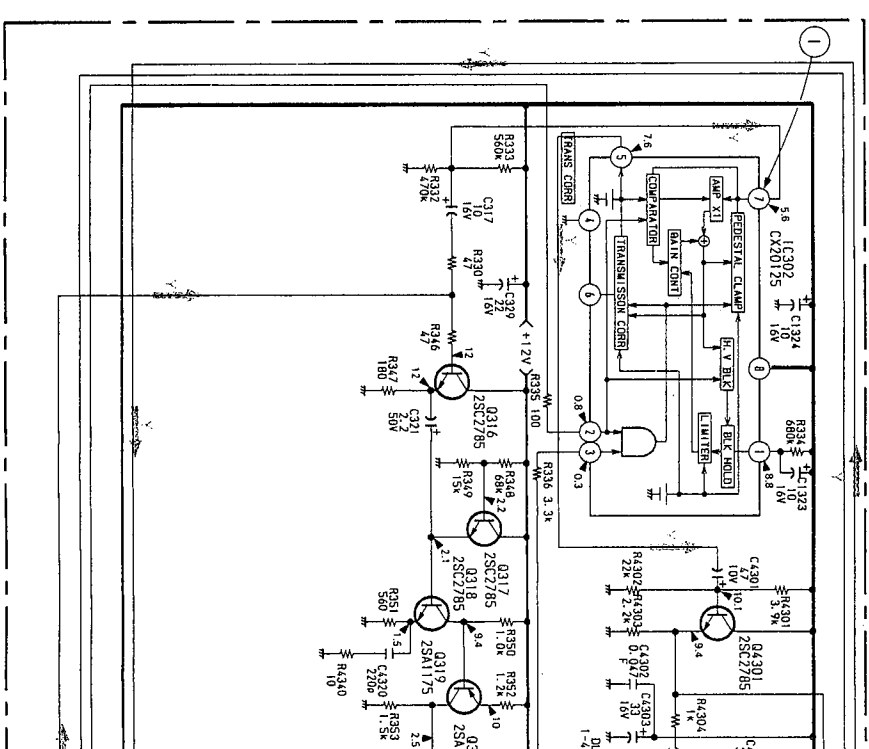
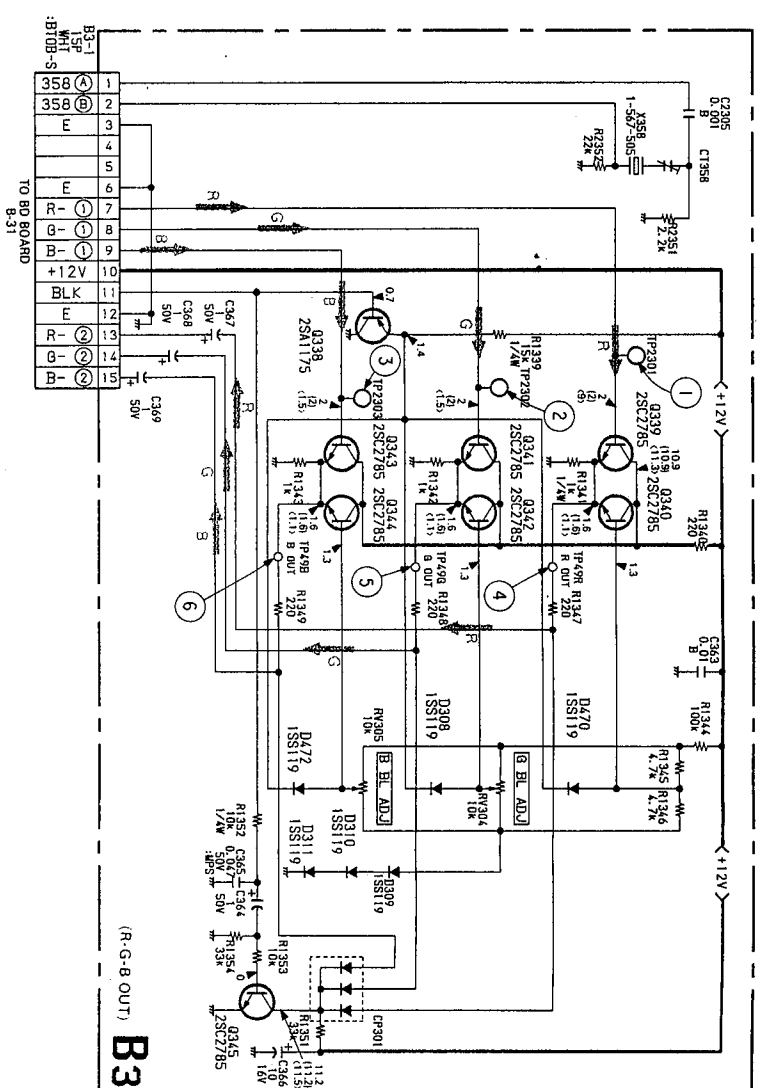
VIDEO	1.8Vp-p (H)	S (VIDEO)	2.2Vp-p (H)
VIDEO	0.7Vp-p (H)	S (VIDEO)	0.1Vp-p (H)

①  

---

②



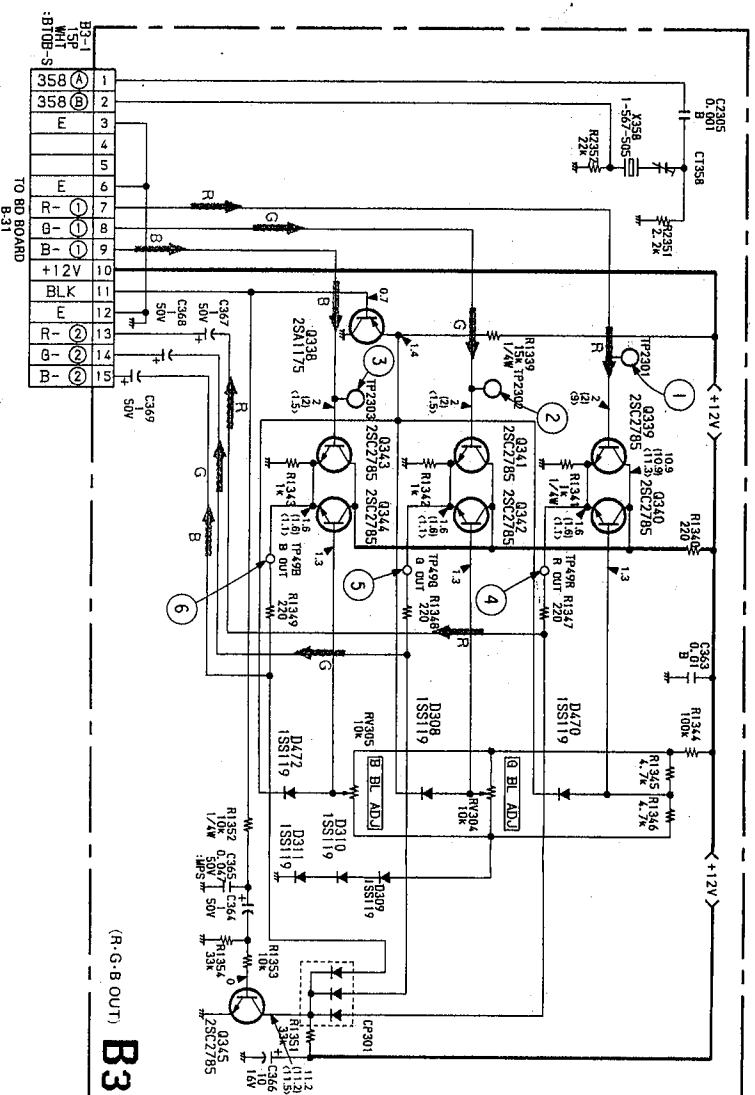




19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

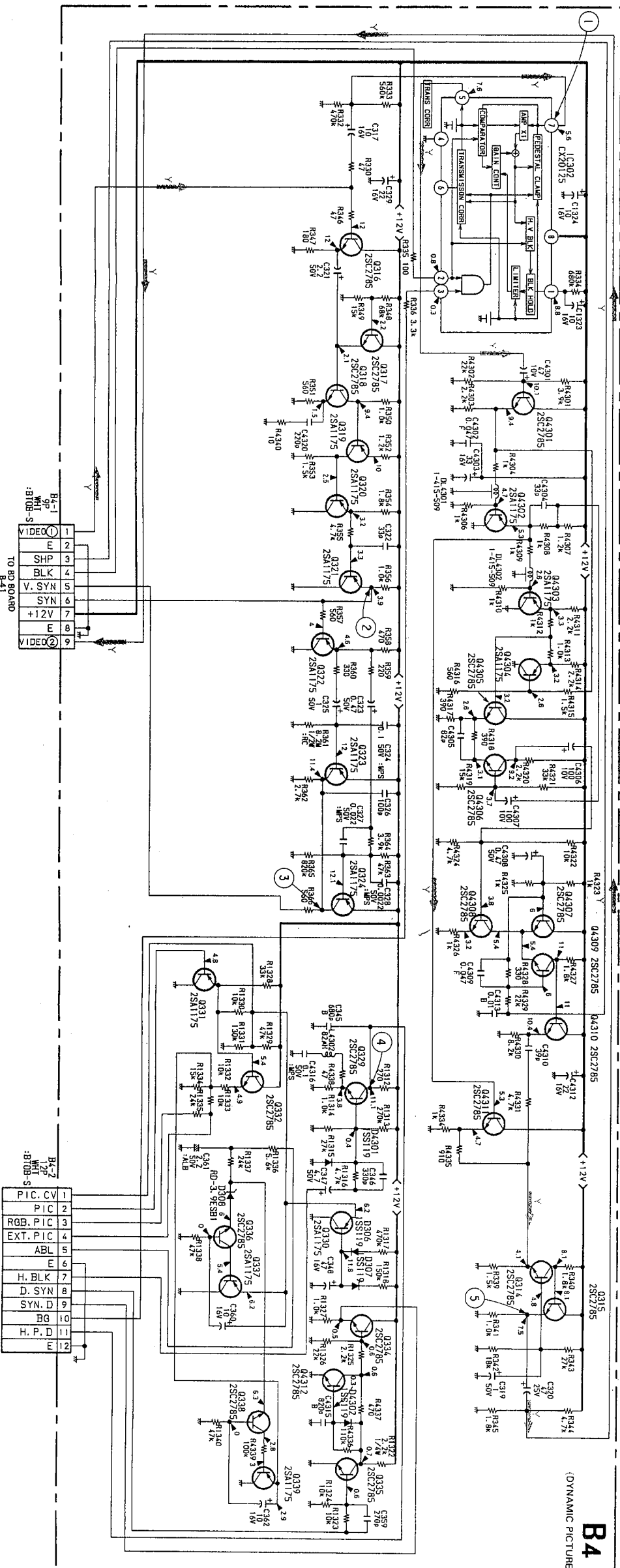
B3 BOARD WAVEFORMS

①	①	②	②	③
VIDEO	S (VIDEO)	VIDEO	S (VIDEO)	VIDEO
2.6Vp-p (H)	3Vp-p (H)	2.7Vp-p (H)	3Vp-p (H)	2.8Vp-p (H)
③	④	⑤	⑥	
VIDEO	S (VIDEO)	VIDEO	S (VIDEO)	
3Vp-p (H)	0.8Vp-p (H)	0.8Vp-p (H)	1Vp-p (H)	



B3	
0338	2SA1175
339	2SA2785
340	2SA2785
341	2SA2785
342	2SA2785
343	2SA2785
344	2SA2785
345	2SA2785
308	ISS119
309	ISS119
310	ISS119
311	ISS119
470	ISS119
472	ISS119

B4	
IC302	CX20125
0314	2SC2785
315	2SC2785
316	2SC2785
317	2SC2785
318	2SC2785
319	2SA1175
320	2SA1175
321	2SA1175
322	2SA1175
323	2SA1175
324	2SA1175
329	2SC2785
330	2SA1175
331	2SA1175
332	2SC2785
334	2SC2785
335	2SC2785
336	2SC2785
337	2SA1175

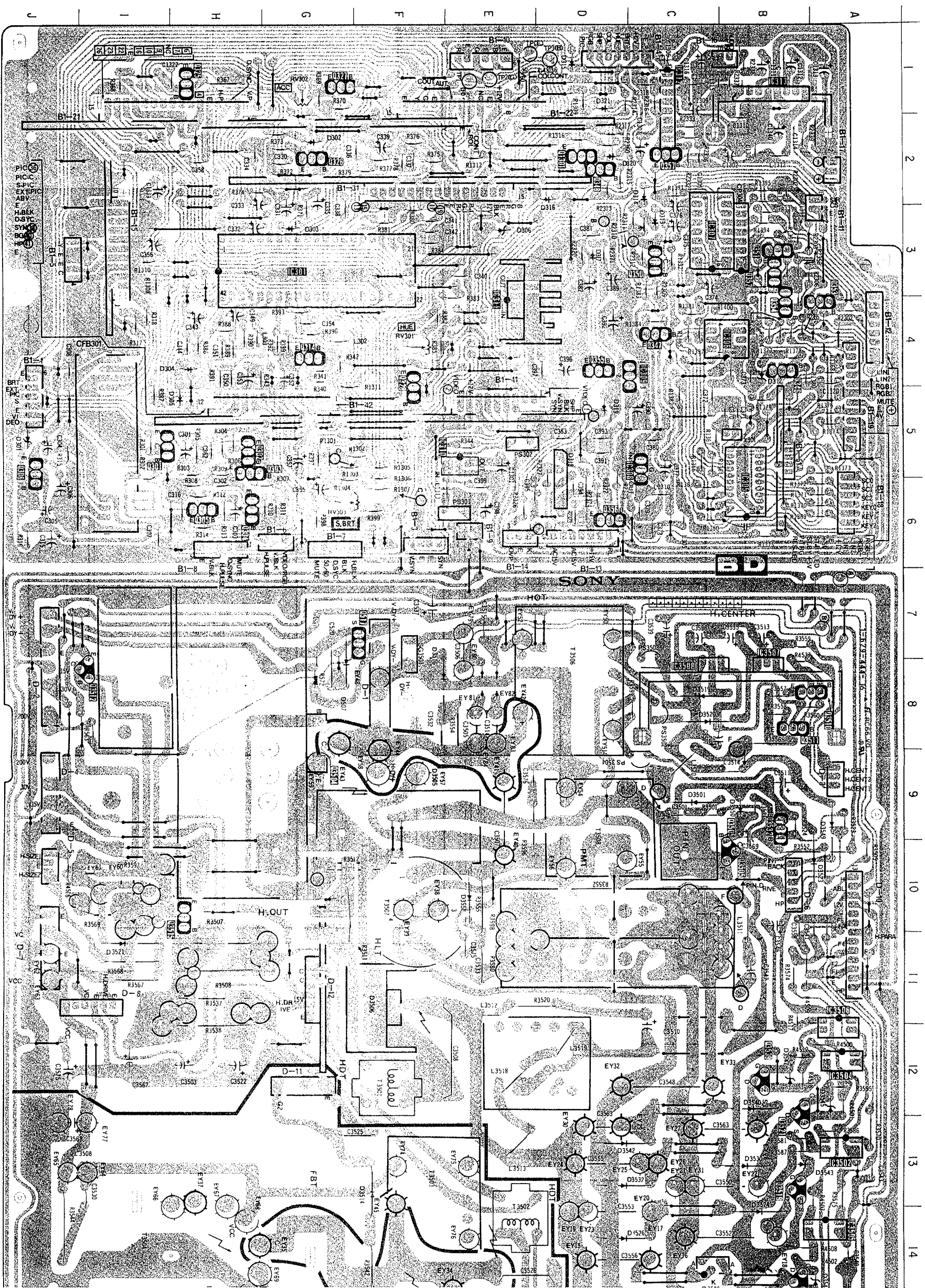


B4-1	
1	VIDEO
2	VIDEO
3	VIDEO
4	VIDEO
5	VIDEO
6	VIDEO
7	VIDEO
8	VIDEO
9	VIDEO
10	VIDEO
11	VIDEO
12	VIDEO

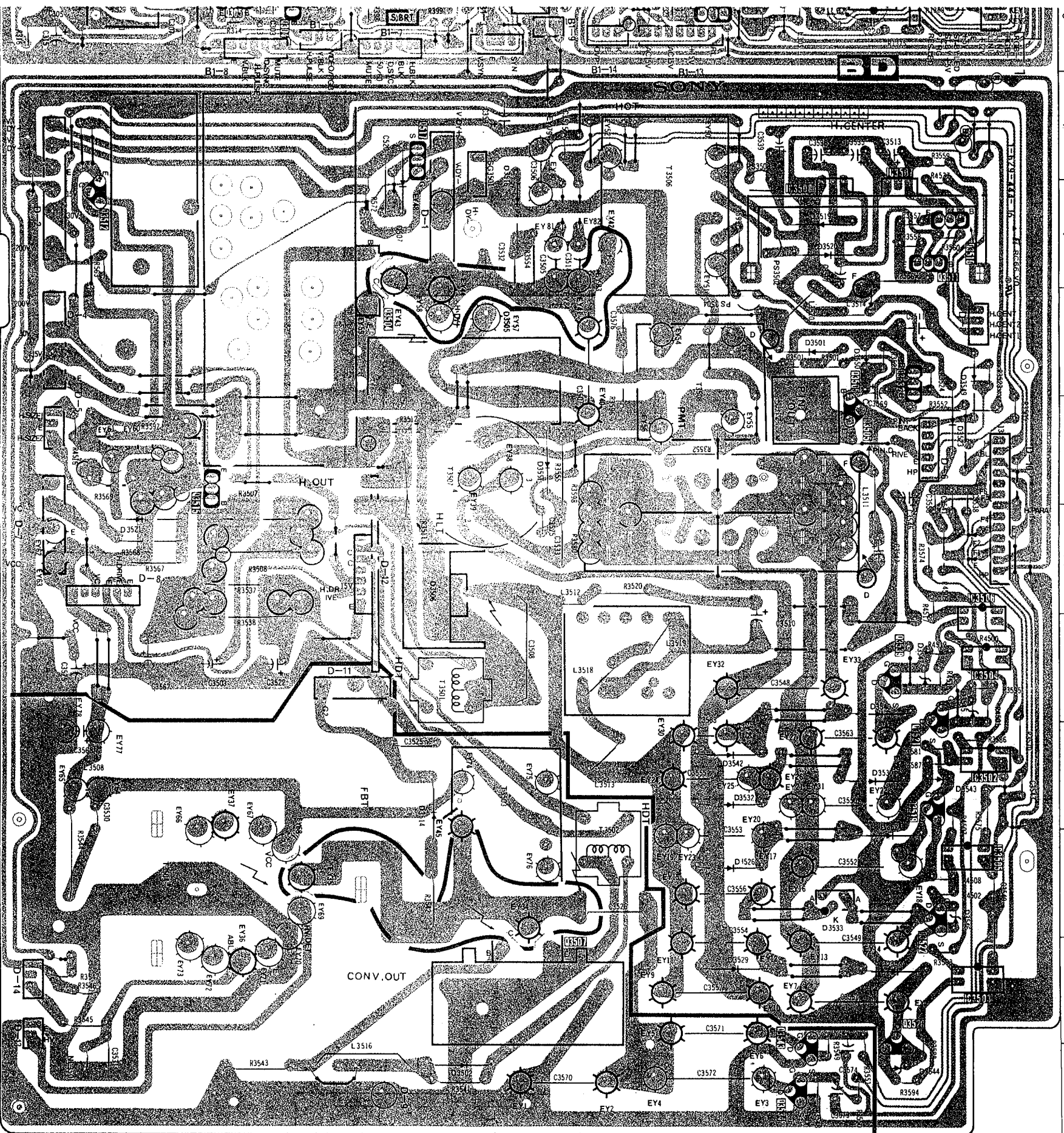
B4-2	
1	PIC CV1
2	PIC CV2
3	PIC CV3
4	PIC CV4
5	PIC CV5
6	PIC CV6
7	PIC CV7
8	PIC CV8
9	PIC CV9
10	PIC CV10
11	PIC CV11
12	PIC CV12

[Y/C PROCESS, CONTROL  
D/A CONV, AUDIO OUT

ard —



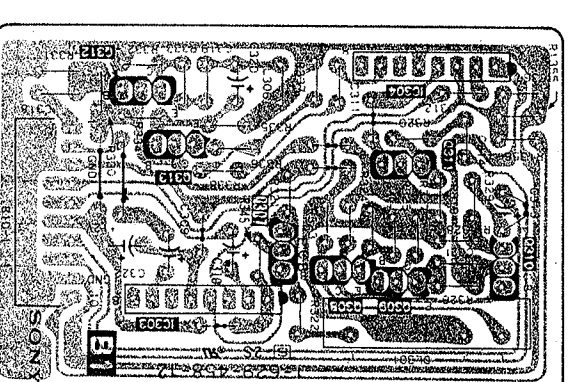




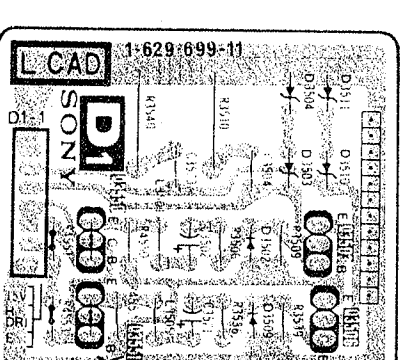
BD Board

IC	DIODE
IC301 G-3	D301 J-5
IC305 B-6	D302 G-2
IC306 B-4	D303 G-3
IC307 C-3	D304 H-5
IC308 C-5	D305 H-5
IC309 C-4	D312 <sup>*</sup> B-4
IC310 E-5	D313 C-3
IC311 E-4	D314 C-2
IC312 C-1	D315 D-1
IC313 B-1	D316 D-2
IC3502 A-13	D317 D-3
IC3503 A-15	D318 D-5
IC3504 A-12	D319 D-5
IC3505 A-14	D320 D-2
IC3506 A-11	D321 D-1
IC3507 B-8	D3501 C-9
IC3508 C-8	D3505 F-9
	D3506 F-11
	D3514 F-13
	D3516 F-8
	D3519 C-8
TRANSISTOR	D3516 F-8
Q301 I-5	D3520 C-8
Q302 H-5	D3521 I-11
Q303 H-5	D3523 A-11
Q304 H-6	D3524 B-14
Q305 H-6	D3526 C-14
Q306 J-5	D3527 B-18
Q314 G-4	D3529 D-15
Q325 H-1	D3530 B-13
Q326 G-2	D3532 D-13
Q327 G-1	D3533 C-14
Q328 F-4	D3540 B-12
Q346 B-4	D3542 D-13
Q347 C-4	D3543 B-13
Q348 D-2	D3544 B-16
Q350 C-3	D3545 A-12
Q351 B-3	D3546 A-14
Q352 B-3	D3547 B-12
Q353 A-4	D3549 A-9
Q354 B-4	D3550 B-9
Q355 D-4	
Q356 D-6	
Q357 C-2	
Q1301 D-2	VARIABLE RESISTOR
Q3504 G-9	
Q3505 B-10	RV301 F-4
Q3507 E-15	RV302 G-1
Q3510 A-8	RV303 F-6
Q3511 B-8	
Q3512 I-8	
Q3513 H-10	
Q3519 B-13	
Q3520 B-15	
Q3521 B-12	
Q3522 B-14	
Q3530 B-12	
Q3532 B-9	
Q3534 C-16	
Q3543 C-15	

- B1 Board -



— D1 Board —





[ Y/C SW ]

B2

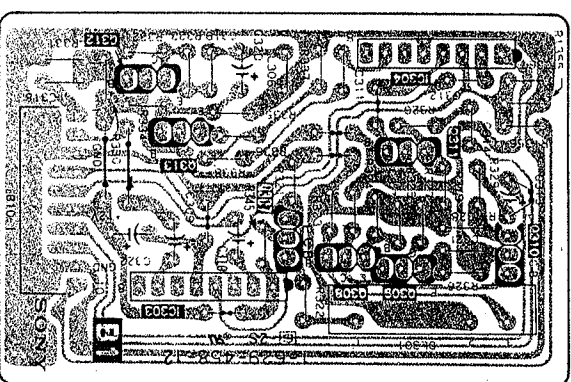
D-1

[H DRIVE, CONV DRIVE]

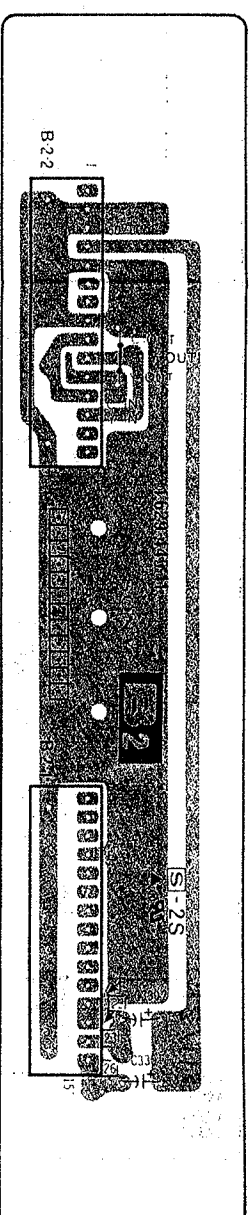
## BD Board

IC	DIODE
IC301	G-3
IC305	B-6
IC306	B-4
IC307	C-3
IC308	C-5
IC309	C-4
IC310	E-5
IC311	E-4
IC312	C-1
IC313	B-1
IC3502	A-13
IC3503	A-15
IC3504	A-12
IC3505	A-14
IC3506	A-11
IC3507	B-8
IC3508	C-8
TRANSISTOR	
Q301	I-5
Q302	H-5
Q303	H-5
Q304	H-6
Q305	H-6
Q306	J-5
Q314	G-4
Q325	H-1
Q326	G-2
Q327	G-1
Q328	F-4
Q346	B-4
Q347	C-4
Q348	D-2
Q350	C-3
Q351	B-3
Q352	B-3
Q353	A-4
Q354	B-4
Q355	D-4
Q356	D-6
Q357	C-2
Q1301	D-2
Q3504	G-9
Q3505	B-10
Q3507	E-15
Q3510	A-8
Q3511	B-8
Q3512	I-8
Q3513	H-10
Q3519	B-13
Q3520	B-15
Q3521	B-12
Q3522	B-14
Q3530	B-12
Q3532	B-9
Q3534	C-16
Q3543	C-15
VARIABLE RESISTOR	
RV301	F-4
RV302	G-1
RV303	F-6

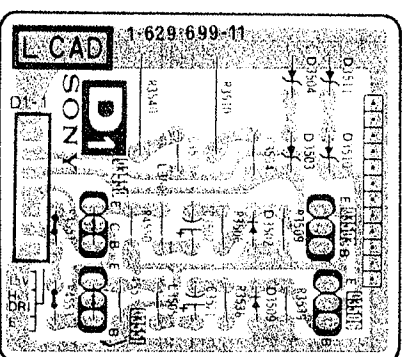
**- B1 Board -**



— B2 Bard —

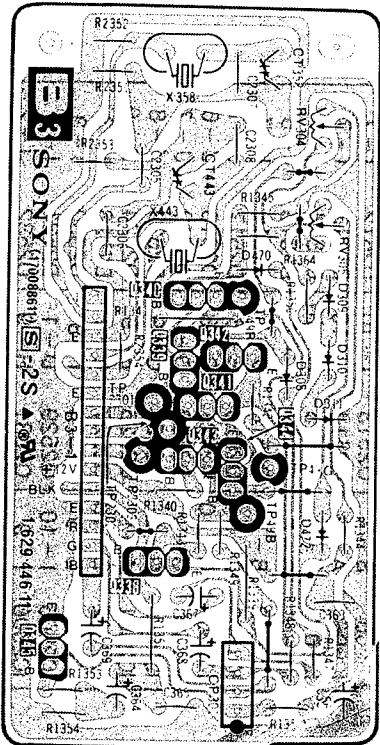


— D1 Board —

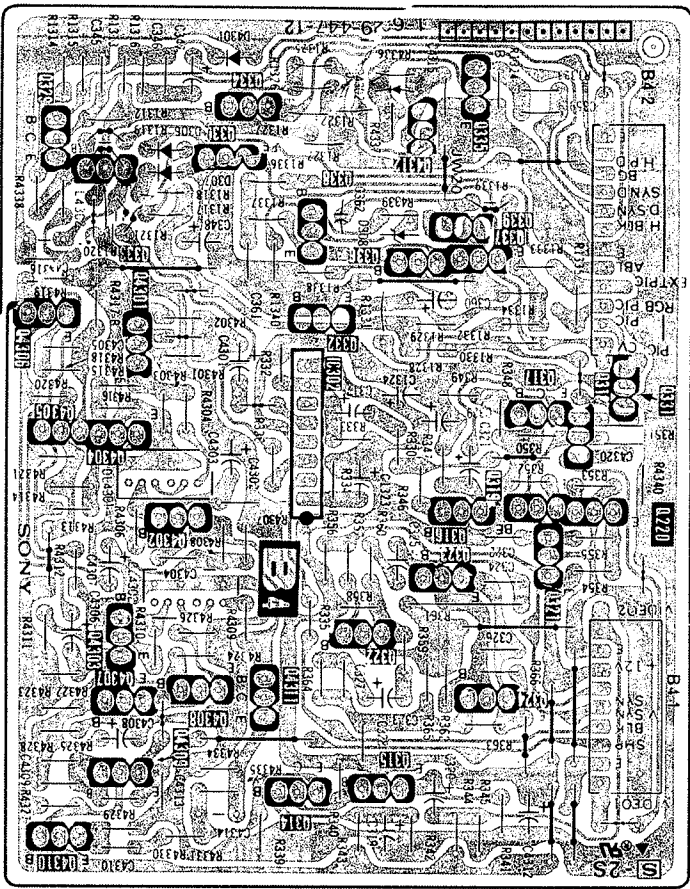


**B3** [RGB OUT]      **B4** [DYNAMIC PICTURE]      **B5** [SW]

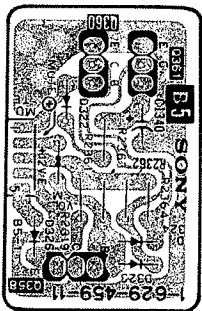
— B3 Board —



— B4 Board —



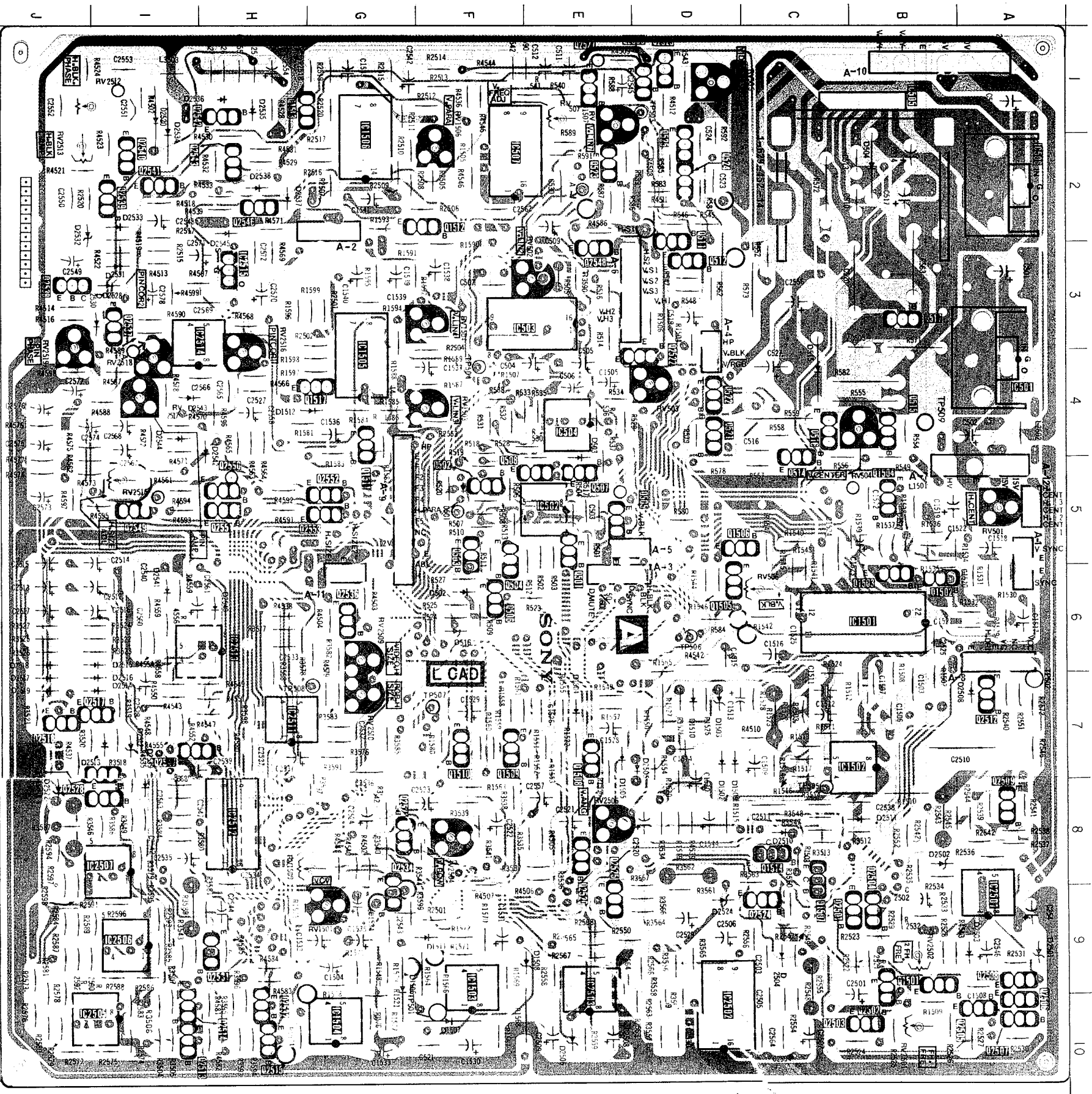
— B5 Board —





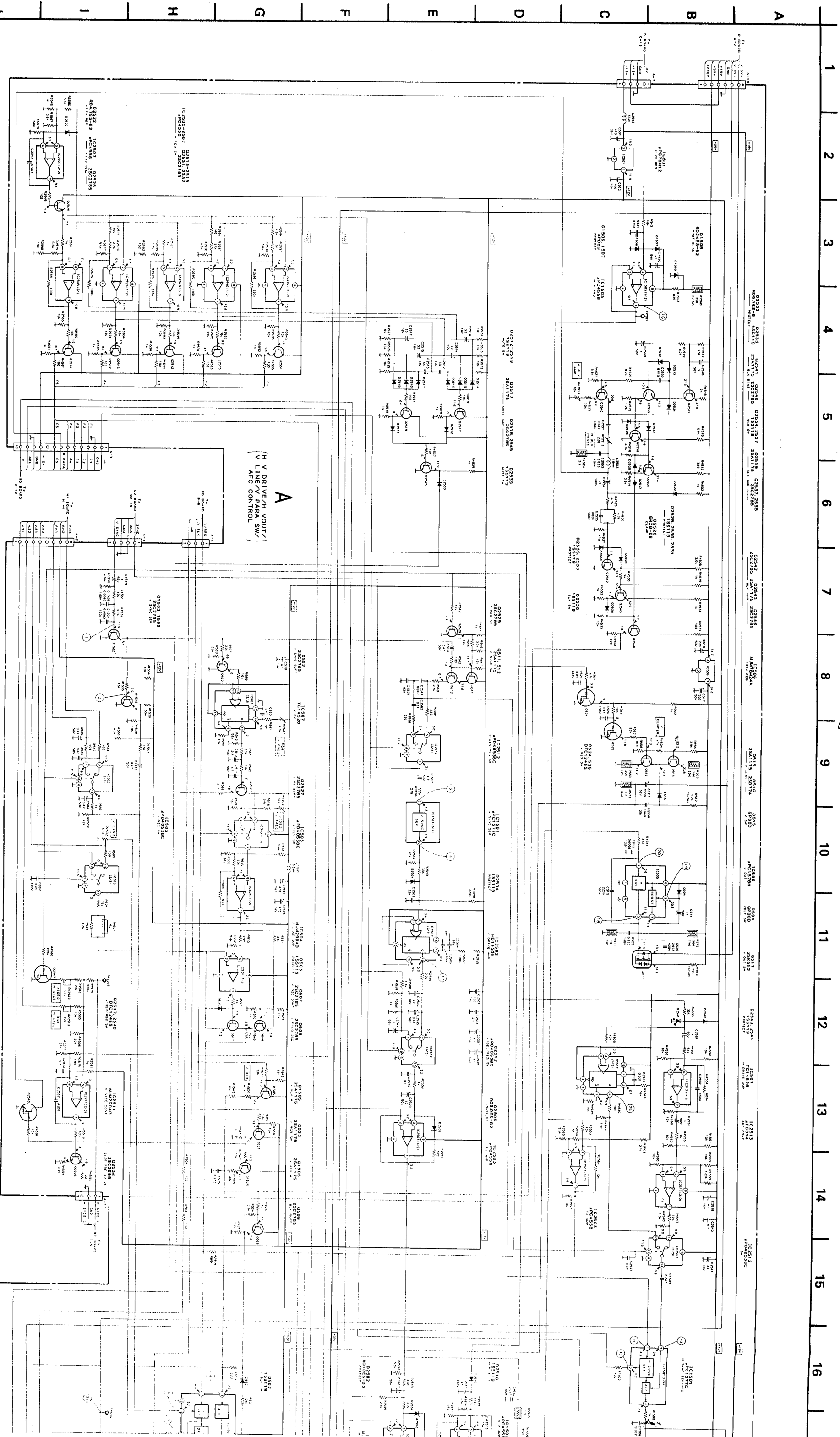
**A** [H-V DRIVE, H-V OUT, V LIN, V PARA]  
[SWITCH, AFC CONTROL]

GVM-2020      GVM-2020

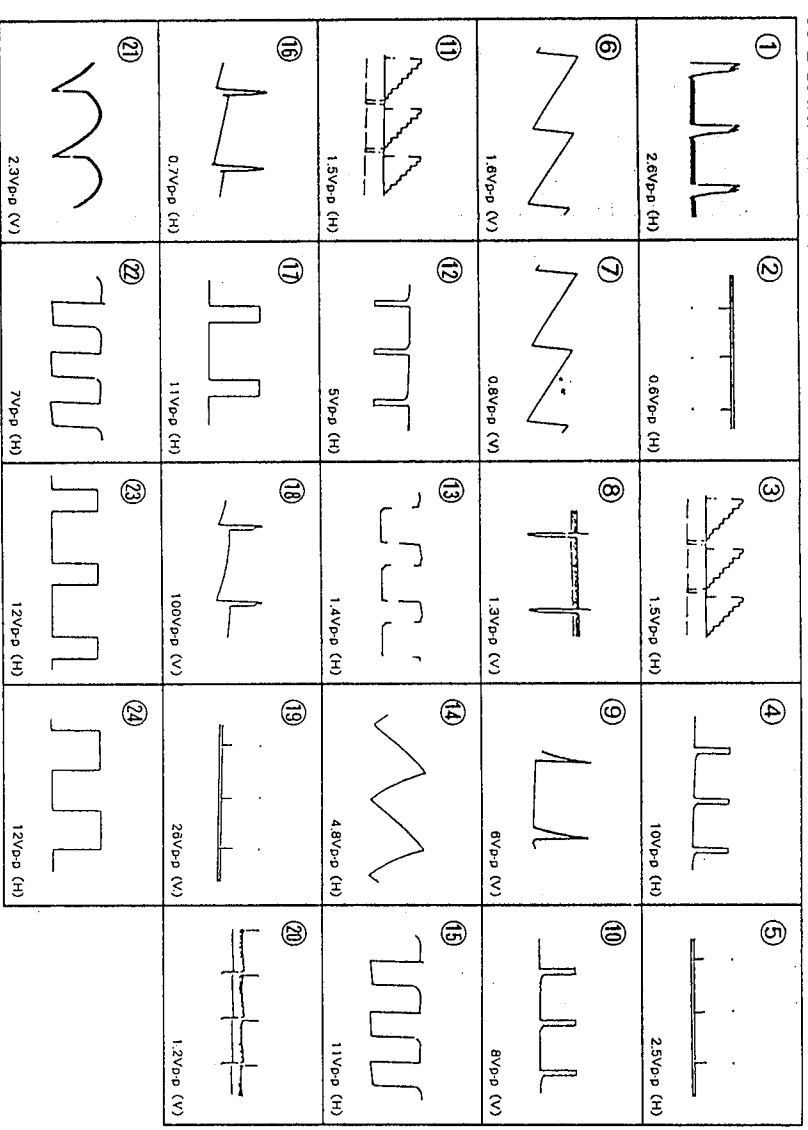
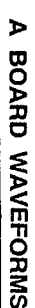


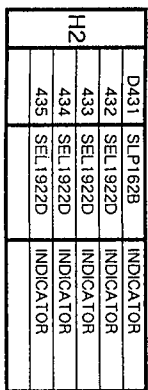
A Board

C			D		
IC501	A-4	02506	A-10	D2505	D-7
IC502	E-3	02507	A-10	D2506	E-10
IC503	E-4	02508	A-9	D2508	A-7
IC504	B-1	02509	A-7	D2510	C-8
IC505	A-2	02510	I-10	D2511	B-8
IC506	F-2	02511	I-10	D2512	I-7
IC507	B-6	02512	I-10	D2513	I-7
IC1501	B-7	02513	I-10	D2514	I-7
IC1502	F-9	02514	I-10	D2515	I-7
IC1503	G-4	02515	I-10	D2516	I-7
IC1504	G-4	02516	I-10	D2517	I-7
IC1505	G-4	02517	I-10	D2518	I-7
IC1506	A-9	02518	I-10	D2519	I-7
IC2501	A-9	02519	I-10	D2520	I-7
IC2502	D-10	02520	I-10	D2521	I-7
IC2503	E-9	02521	I-10	D2522	I-7
IC2504	E-9	02522	I-10	D2523	I-7
IC2505	I-10	02523	I-10	D2524	I-7
IC2506	I-8	02524	I-10	D2525	I-7
IC2507	I-8	02525	I-10	D2526	I-7
IC2508	H-7	02526	I-10	D2527	I-7
IC2509	H-8	02527	I-10	D2528	I-7
IC2510	H-8	02528	I-10	D2529	I-7
IC2511	H-6	02529	I-10	D2530	I-7
IC2512	H-6	02530	I-10	D2531	I-7
IC2513	H-3	02531	I-10	D2532	I-7
IC2514	H-3	02532	I-10	D2533	I-7
IC2515	H-3	02533	I-10	D2534	I-7
TRANSISTOR			VARIABLE RESISTOR		
0502	F-5	02534	I-10	D2535	I-7
0506	F-6	02535	I-10	D2536	I-7
0507	E-5	02536	I-10	D2537	I-7
0508	E-5	02537	I-10	D2538	I-7
0511	D-3	02538	I-10	D2539	I-7
0512	D-3	02539	I-10	D2540	I-7
0515	B-4	02540	I-10	D2541	I-7
0516	C-4	02541	I-10	D2542	I-7
0517	C-4	02542	I-10	D2543	I-7
0521	D-4	02543	I-10	D2544	I-7
0522	D-4	02544	I-10	D2545	I-7
0523	E-2	02545	I-10		
0524	D-2	02546	I-10		
0525	D-2	02547	I-10		
0530	B-6	02548	I-10		
0534	B-5	02549	I-10		
0535	D-6	02550	I-10		
0536	D-5	02551	I-10		
0537	C-8	02552	I-10		
0538	E-7	02553	I-10		
0539	F-7				
0540	F-7				
0541	G-4				
0542	G-4				
0543	B-9				
0544	B-10				
0545	A-10				
DIODE					
D502	F-6				
D503	E-5				
D504	B-2				
D505	C-4				
D506	D-7				
D507	E-7				
D508	F-7				
D509	G-7				
D510	H-1				
D511	I-1				
D512	J-1				
D513	K-1				
D514	L-1				
D515	M-1				
D516	N-1				
D517	O-1				
D518	P-1				
D519	Q-1				
D520	R-1				
D521	S-1				
D522	T-1				
D523	U-1				
D524	V-1				
D525	W-1				
D526	X-1				
D527	Y-1				
D528	Z-1				
D529	A-2				
D530	B-2				
D531	C-2				
D532	D-2				
D533	E-2				
D534	F-2				
D535	G-2				
D536	H-2				
D537	I-2				
D538	J-2				
D539	K-2				
D540	L-2				
D541	M-2				
D542	N-2				
D543	O-2				
D544	P-2				
D545	Q-2				



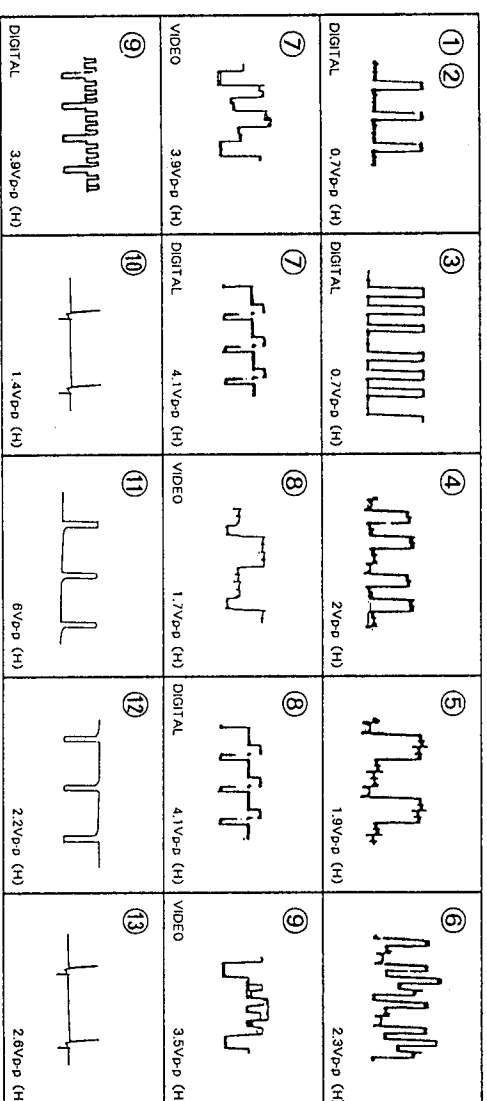




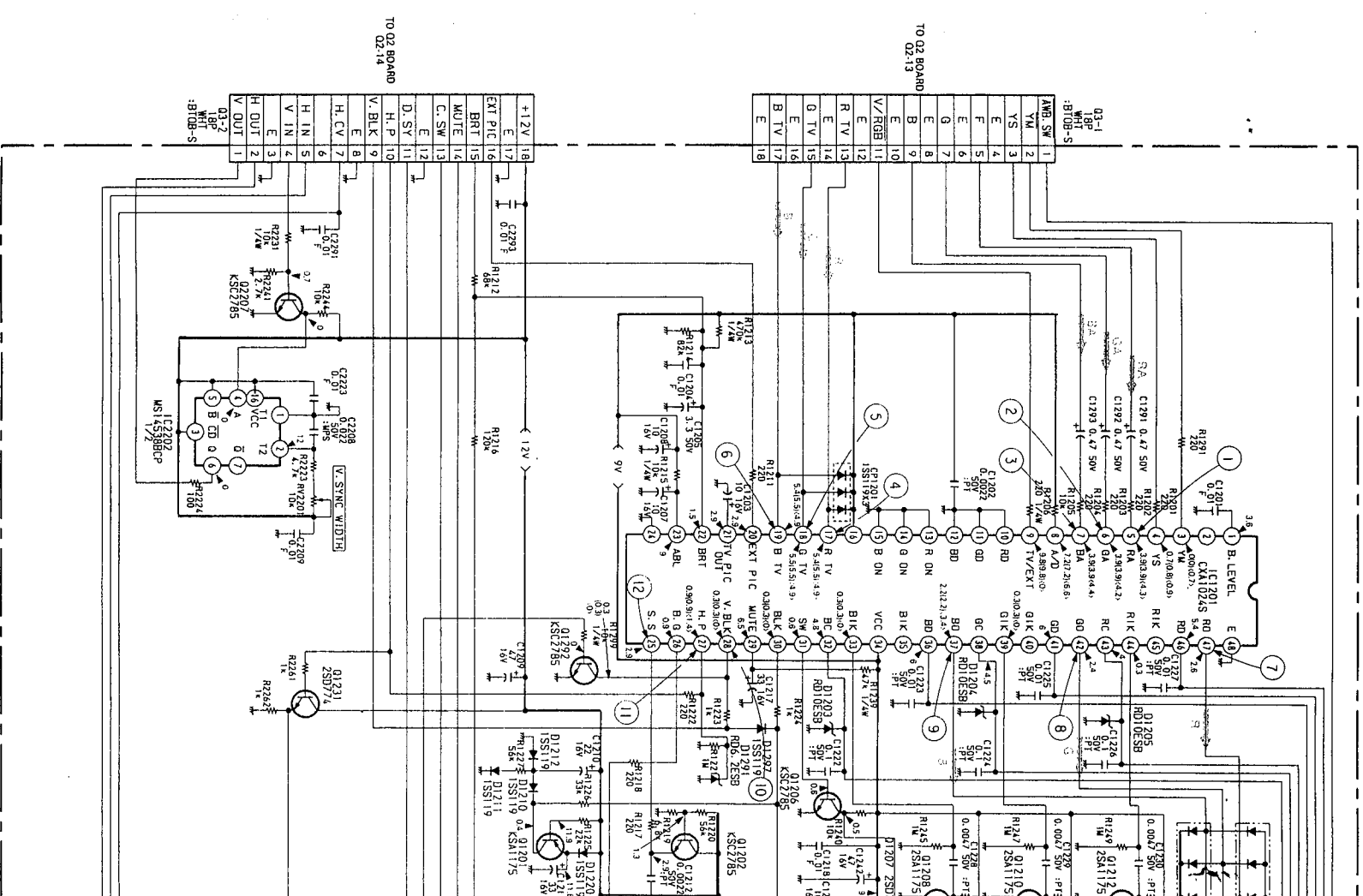


IC1201	CXA1024S	AUTO WHITE BALANCE	1291	2SC2785	MUTE
1202	CX20061	RGB SYNC SEP SW	1292	2SC2785	AWB OFF SW
1203	μPD4066BC	AWB OFF SW	2204	2SC2785	H. SYNC AMP
2202	μPD4539BC	DEFLECTION	2205	2SA1175	H. SHIFT
2204	μPD4539BC	H. SHIFT	2206	2SA1175	H. SHIFT
2205	μPC4568	H. SHIFT	2207	2SC2785	V. SYNC AMP
			2208	2SC2785	RGB H. SYNC SEP
			2210	2SC2785	RGB H. SYNC SEP
Q1201	2SA1175	MUTE			
1202	2SC2785	VIDEO SYNC SEP			
1203	2SC2785	RGB SYNC ON GREEN SYNC SEP	D1202	1SS119	RGB SYNC ON GREEN SYNC SEP
1206	2SC2785	AWB SW	1203	RD10ESB	PROTECT
1207	2SD0774	9V REG	1204	RD10ESB	PROTECT
1208	2SA1175	BUFF	1205	RD10ESB	PROTECT
1209	2SA1175	BUFF	1209	RD10ESB	9V REG
1210	2SA1175	BUFF	1210	1SS119	MUTE
1211	2SA1175	BUFF	1211	1SS119	MUTE
1212	2SA1175	BUFF	1212	1SS119	MUTE
1213	2SA1175	BUFF	1220	1SS119	MUTE
1214	2SC2785	BUFF	1291	RD6ZESB	SLICE
1215	2SC2230A	B. DRIVE	1292	1SS119	MUTE
1216	2SC2785	BUFF	1293	RD39ESB1	PROTECT
1217	2SC2230A	Q. DRIVE	1294	1SS119	PROTECT
1218	2SC2785	BUFF	1295	1SS119	PROTECT
1219	2SC2230A	R. DRIVE	1296	1SS119	PROTECT
1220	2SC2785	AWB OFF SW	1297	1SS119	V. BLK
1221	2SC2785	RGB SYNC SEP	1299	1SS119	RGB H. SYNC SEP
1231	2SD0774	+9V REG			

### Q3 BOARD WAVEFORMS



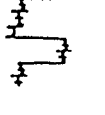
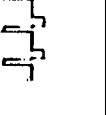
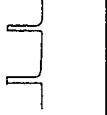
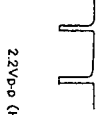
D401	TLUR144	INDICATOR
I1		





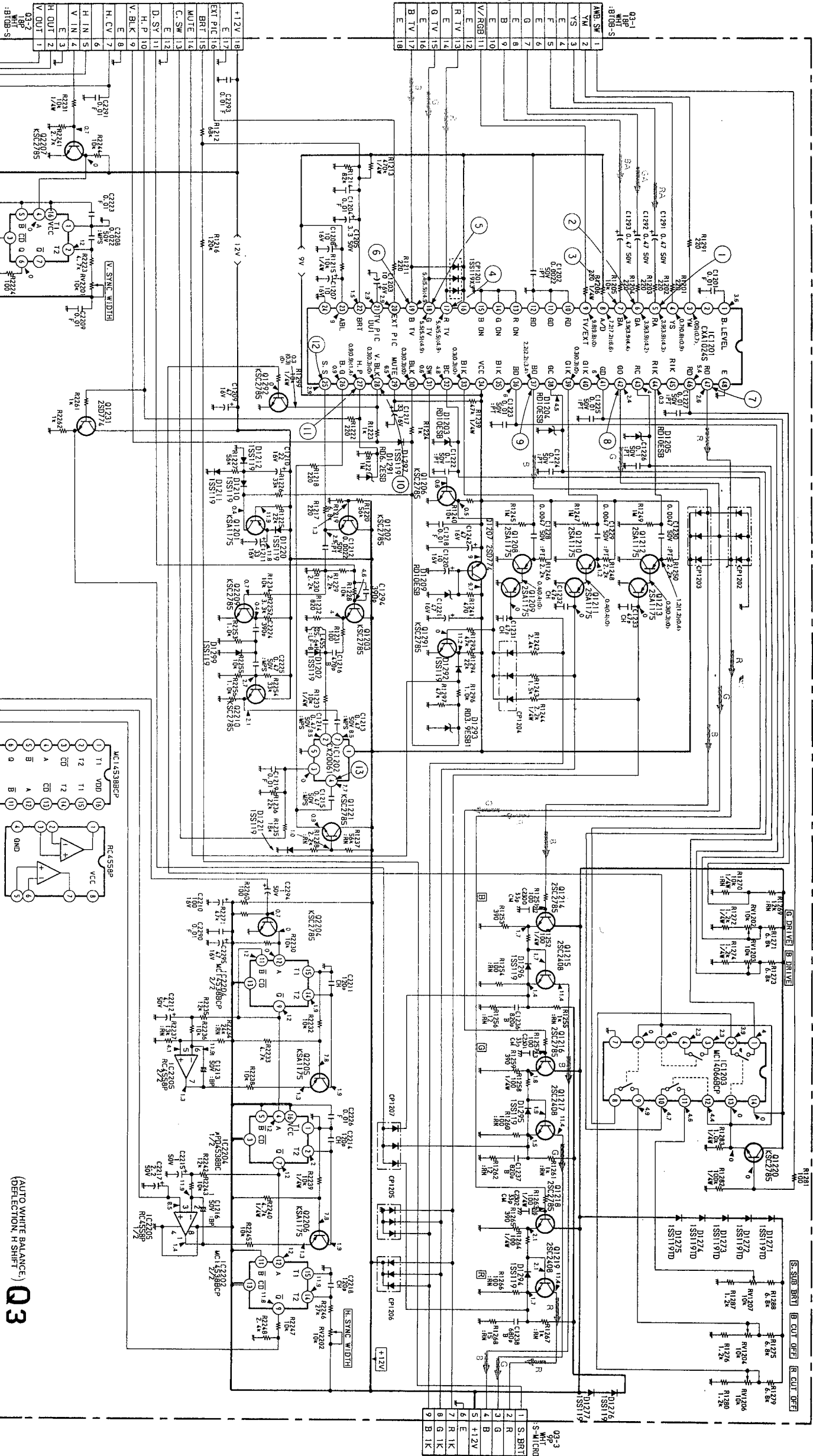
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

AUTUTE	
AMB OFF SW	
I SYNC AMP	
I SHIFT	
I SHIFT	
I SYNC AMP	
IGB H SYNC SEP	
IGB H SYNC SEP	
IGB SYNC ON GREEN SYNC SEP	
PROTECT	
PROTECT	
PROTECT	
IV REG	
AUTUTE	
AUTUTE	
AUTUTE	
SLICE	
AUTUTE	
PROTECT	
PROTECT	
PROTECT	
PROTECT	
IGB H SYNC SEP	

	⑥	1.9Vp-p (H)	2.3Vp-p (H)
	⑨	4.1Vp-p (H)	3.5Vp-p (H)
	⑬	4.1Vp-p (H)	3.5Vp-p (H)
		2.2Vp-p (H)	2.8Vp-p (H)

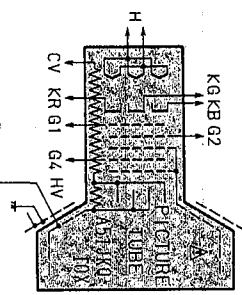
H1	D401	TLU144	INDICATOR
----	------	--------	-----------

TO 02 BOARD  
02.14



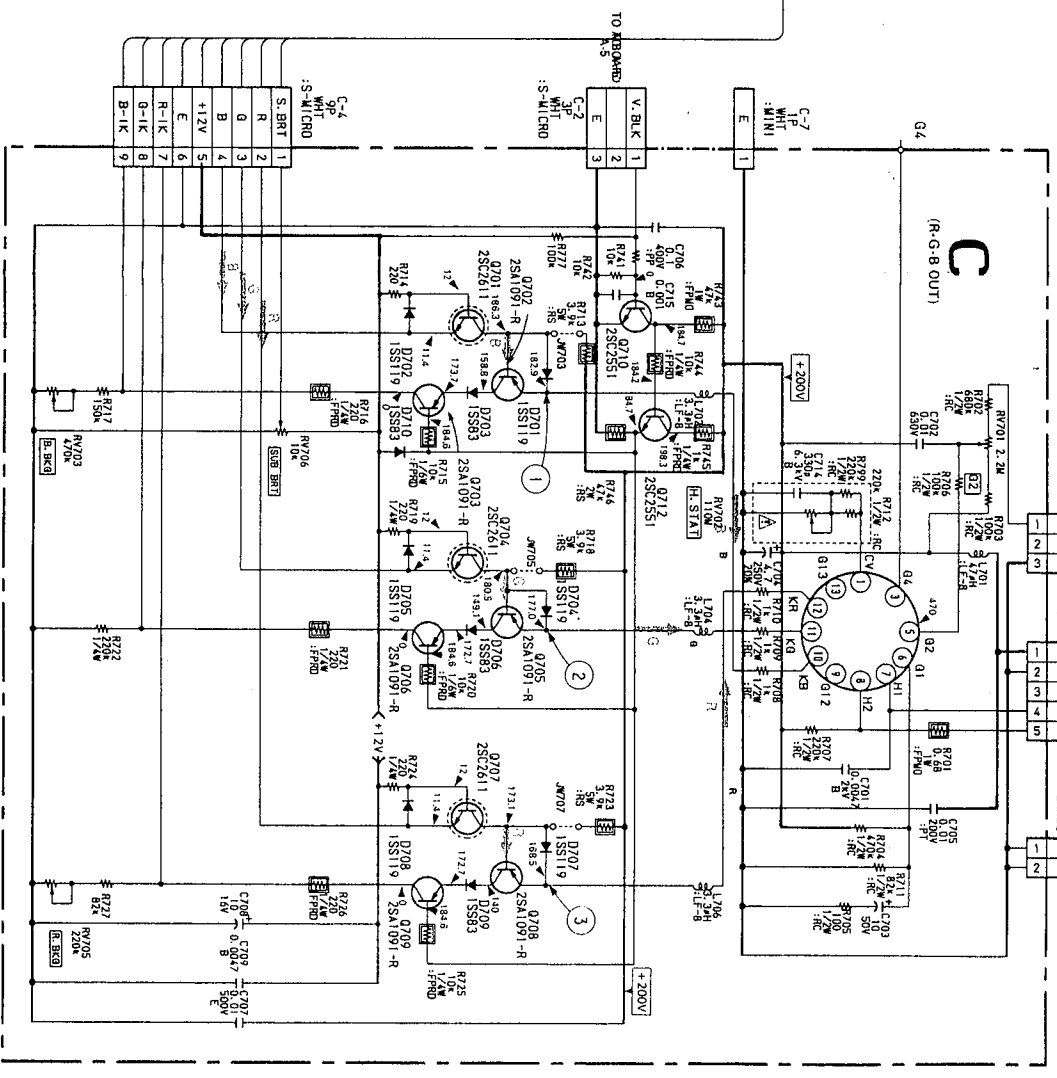
(AUTO WHITE BALANCE, DEFLECTION, H SHIFT) **Q3**

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

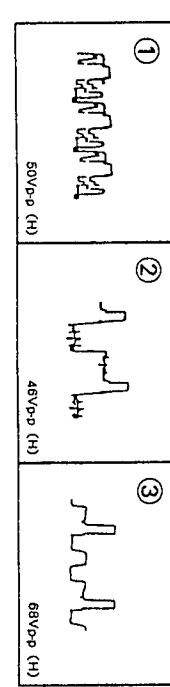


CAUTION  
WHEN REPLACING PARTS, REFER TO THE HOLD-DOWN CHECK POINT VOLTAGE VALUE  
REFER TO THE SAFETY ADJUSTMENT ITEM.

TO G2, 3 BOARD  
TO PICTURE TUBE SHIELD  
BE SURE TO CONNECT  
THE CONNECTOR C-5  
FOR SAFETY



C BOARD WAVEFORMS



0701	2SC2611	B. VIDEO OUT
702	2SA1091-R	B. IK DETECT
703	2SA1091-R	B. IK SW
704	2SC2611	G. VIDEO OUT
705	2SA1091-R	G. IK DETECT
706	2SA1091-R	G. IK SW
707	2SC2611	R. VIDEO OUT
708	2SA1091-R	R. IK DETECT
709	2SA1091-R	R. IK SW
710	2SC2551	V. BLK-1
712	2SC2551	V. BLK-2
D701	1SS119	PROTECT
702	1SS119	PROTECT
703	1SS83	B. IK SW
704	1SS119	PROTECT
705	1SS119	PROTECT
706	1SS83	G. IK SW
707	1SS119	PROTECT
708	1SS119	PROTECT
709	1SS83	R. IK SW
710	1SS83	V. BLK

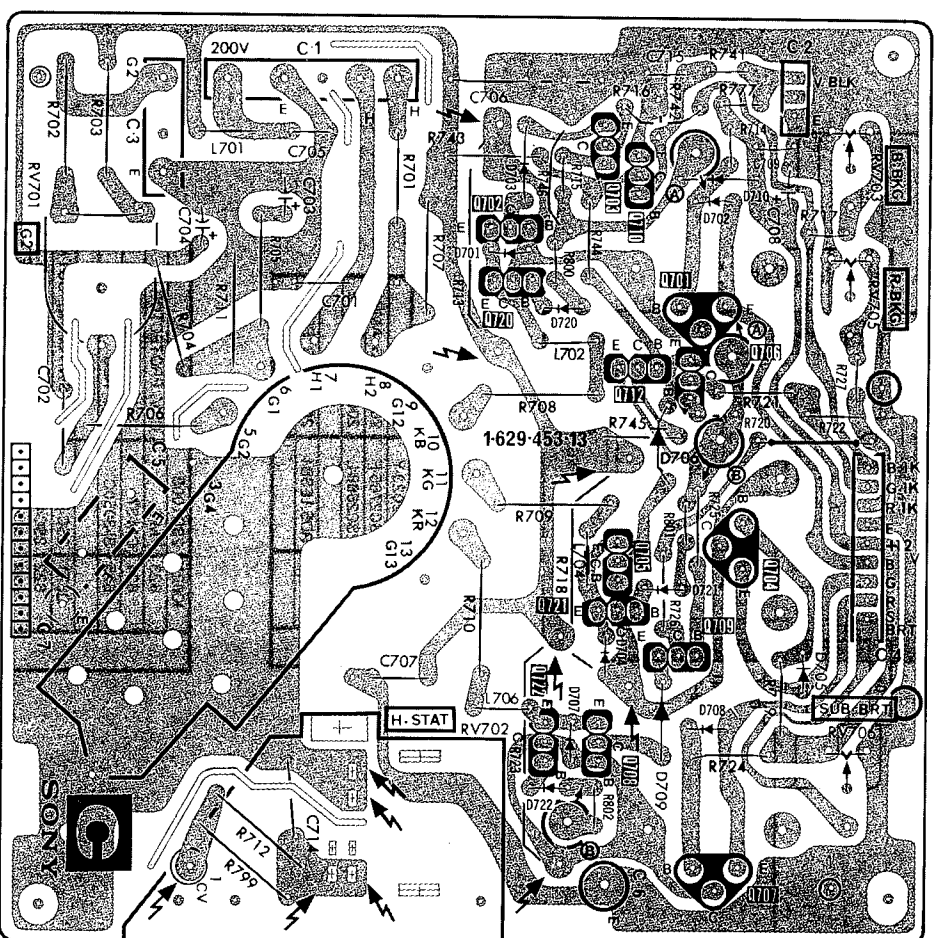
**C**  
[R·G·B OUT]

**Q3** [AUTO WHITE BALANCE, DEFLECTION, H SHIFT]

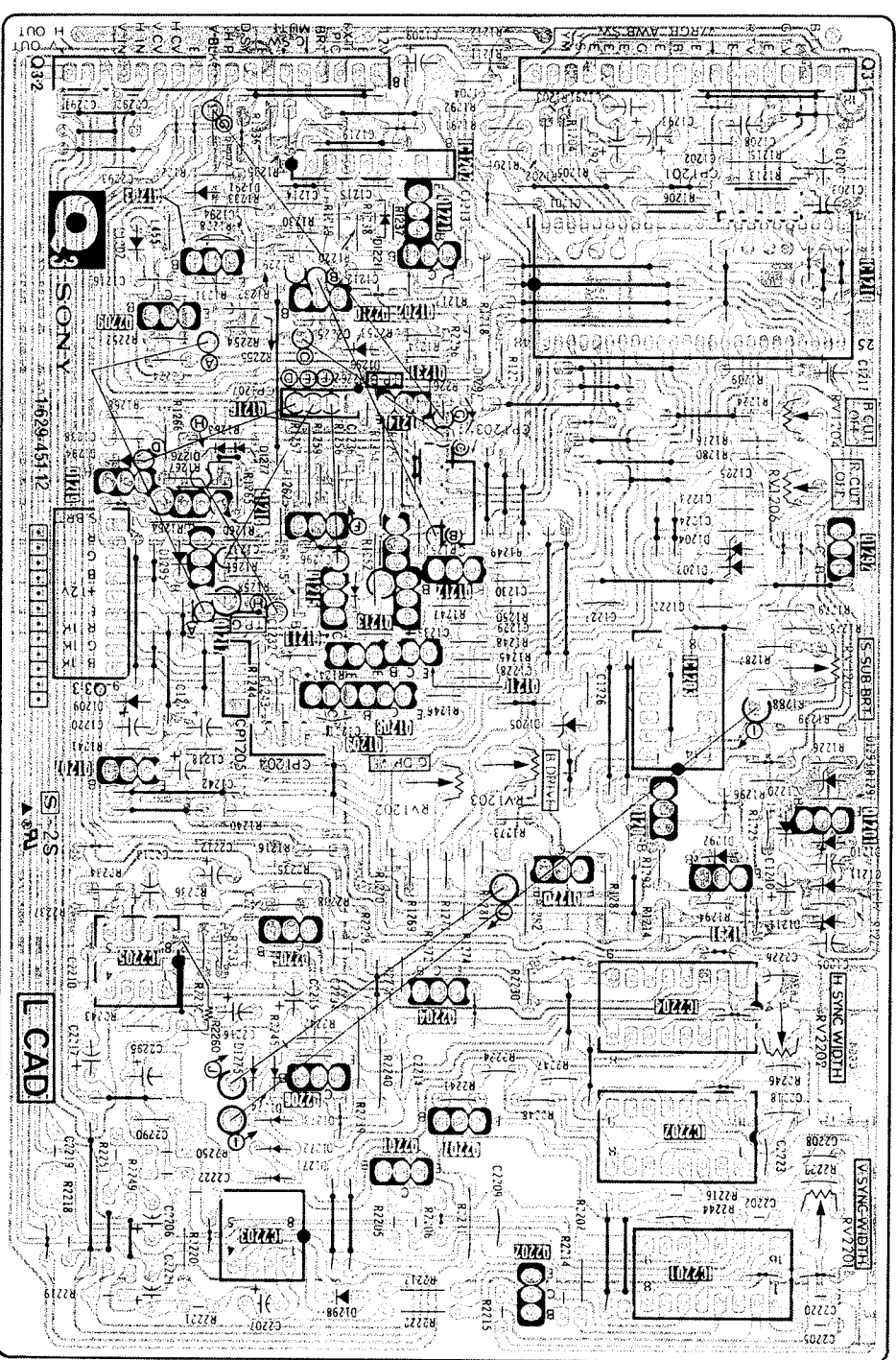
**H1**  
[USER CONTROL]

## INDICATORI

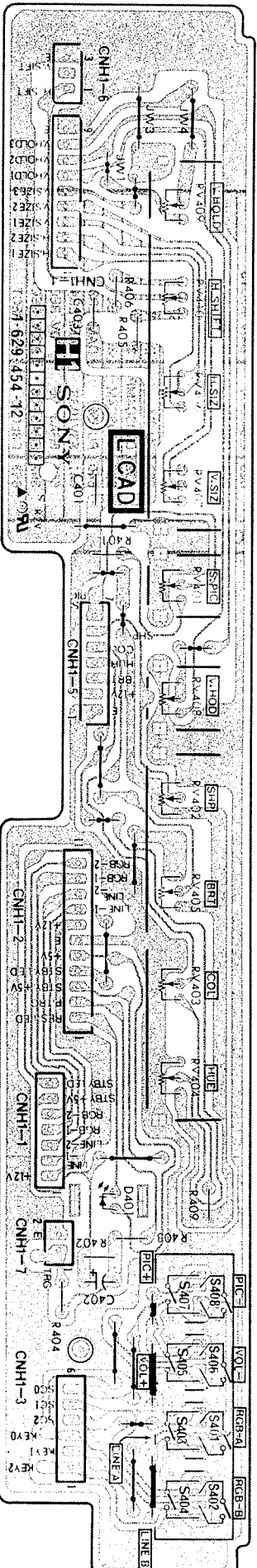
— C Board —



– Q3 Board –

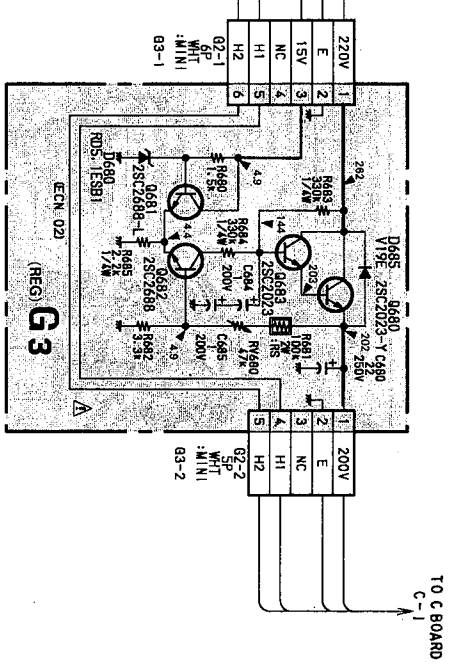
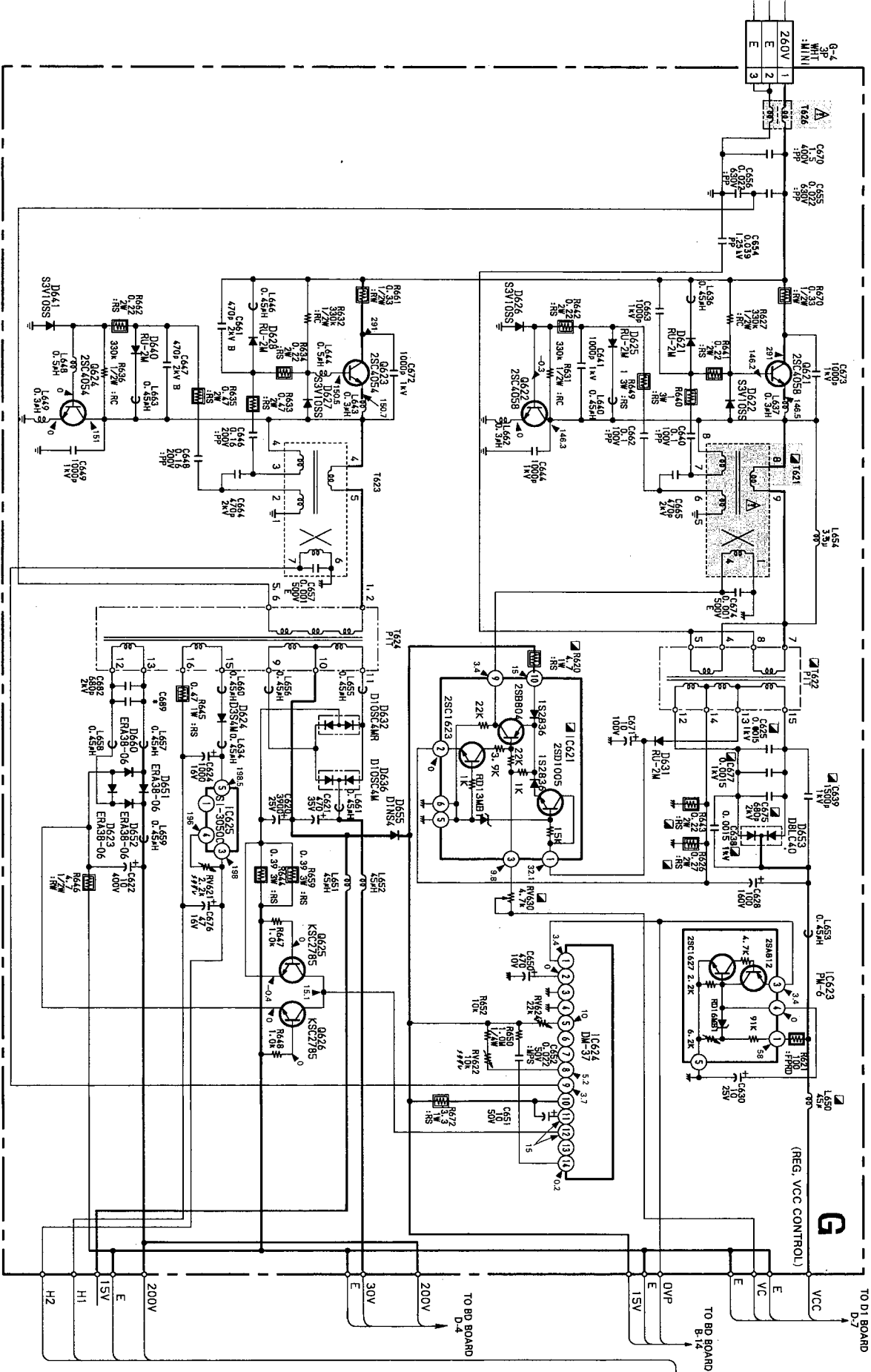


**- H1 Board -**



-77-

-78-



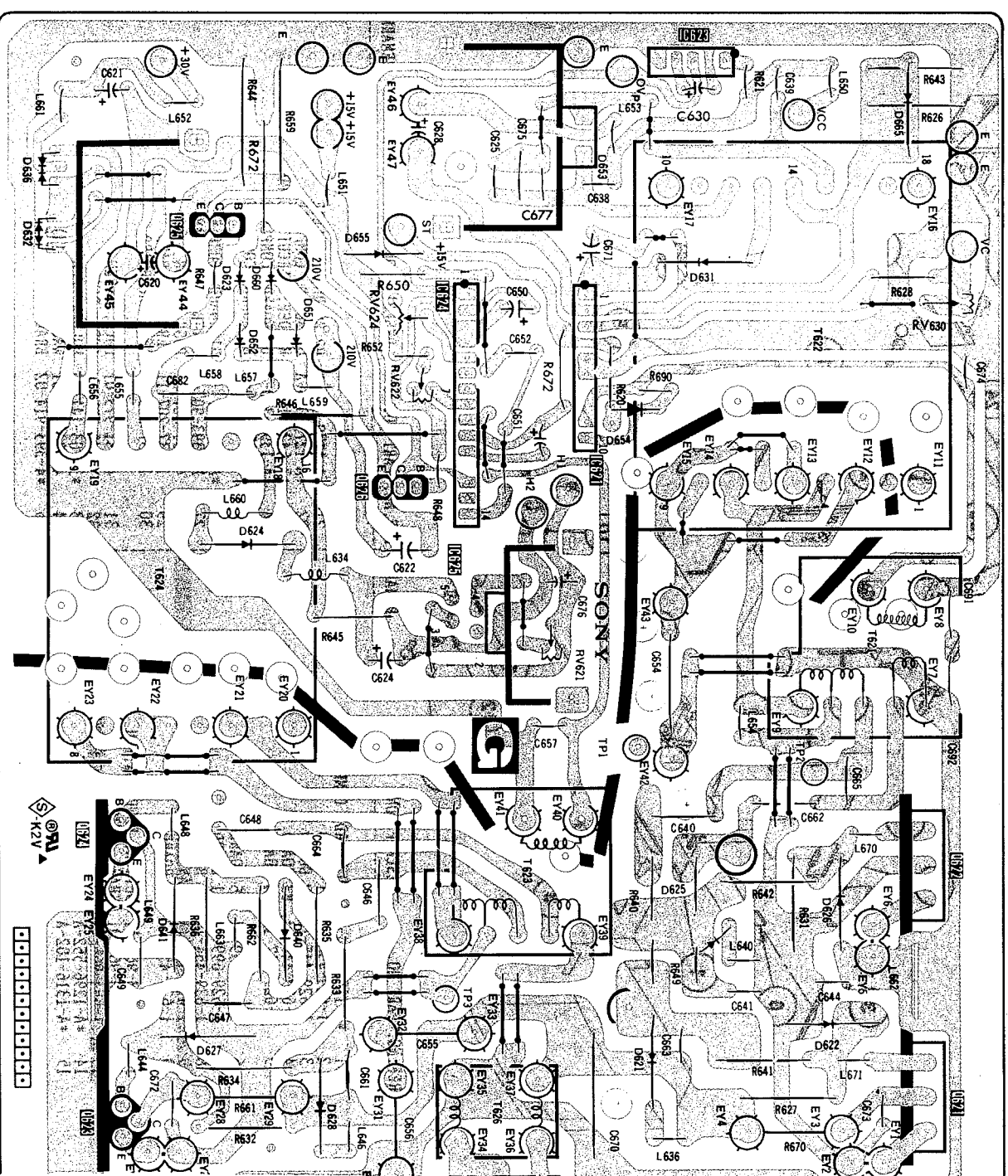
G3	Q680	2SC2023-V	200V REG
	681	2SC2785-F	200V REG AMP1
	682	2SC2688-L	200V REG AMP2
	D680	RC5.1ESB1	200V REG REF

G	IC621	2SD1005	Vcc CONTROL
	623	PM46	0. V. PROTECTOR
	624	DM-37	15V CONTROL
	625	SI-3050C	6.3V REG
	Q621	2SC4058	Vcc SWITCHING OUTT
	622	2SC4058	Vcc SWITCHING OUT2
	623	2SC4054	15V SWITCHING OUT2
	624	2SC4054	15V SWITCHING OUT2
	625	2SC2785	CURRENT LIMITTER1
	626	2SC2785	CURRENT LIMITTER2
	D621	RU2M	DAMPER2
	622	S3V10SS	DAMPER1
	623	ERA38-06	200V RECT3
	624	D3S4M	RECT
	625	RU2M	DAMPER3
	626	S3V10SS	DAMPER4
	627	S3V10SS	DAMPER1
	628	RU2M	DAMPER2
	632	D10SC4M	30V RECT1
	636	D10SC4M	30V RECT2
	640	RU2M	DAMPER3
	641	S3V10SS	DAMPER4
	651	ERA38-06	200V RECT2
	652	ERA38-06	200V RECT4
	653	D8LC40	Vcc RECT
	655	D1NS4	15V SW
	660	ERA38-06	200V RECT1

**[POWER]**

[illegible]

**- H2 Board -**







U<sub>1</sub>

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R2099	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2100	1-216-115-00	METAL GLAZE 560K 5%	1/10W
R2101	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2102	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2103	1-216-049-00	METAL GLAZE 1K 5%	1/10W

## &lt;VARIABLE RESISTOR&gt;

RV2001 1-228-993-00 RES, ADJ, METAL GLAZE 4.7K

## &lt;SWITCH&gt;

S2001	1-572-189-11	SWITCH, PUSH (1 KEY)
S2002	1-571-868-11	SWITCH, PUSH (1 KEY)
S2003	1-571-427-11	SWITCH, SLIDE
S2004	1-571-429-11	SWITCH, SLIDE

## &lt;SOCKET&gt;

SP2002\*1-562-994-11 SOCKET, JUMPER CONNECTOR

\*\*\*\*\*

## MISCELLANEOUS

\*\*\*\*\*

$\Delta$ 1-205-772-11	RES, CEMENT WIREWOUND 1
$\Delta$ 1-238-368-21	RESISTOR ASSY, HIGH-VOLTAGE
$\Delta$ 1-426-301-11	COIL, DEMAGNETIZATION
$\Delta$ 1-451-340-13	DEFLECTION YOKE (Y21PFC2)
1-452-032-00	MAGNET, DISC

1-452-277-00	MAGNET, BMC
1-503-258-21	SPEAKER
1-537-208-21	TERMINAL BOARD
1-540-006-12	CAP ASSY, HIGH-VOLTAGE
1-543-870-21	CORE, RING

S1901 $\Delta$ 1-554-966-12	SWITCH, PUSH (AC POWER) (1 KEY)
$\Delta$ 1-574-443-21	CORD, POWER (WITH NOISE FILTER) (6A/125V)
$\Delta$ 8-736-522-05	PICTURE TUBE SD-153U

\*\*\*\*\*

## ACCESSORIES &amp; PACKING MATERIALS

\*\*\*\*\*

PART NO.	DESCRIPTION	REMARK
3-754-455-21	MANUAL, INSTRUCTION	
*4-035-092-01	INDIVIDUAL CARTON	
4-384-027-01	BAG, PROTECTION	
*4-393-921-01	CUSHION (UPPER) (ASSY)	
*4-393-922-01	CUSHION (LOWER) (ASSY)	

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are criti-  
cal for safety.  
Replace only with part number  
specified.

U1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<COIL>				R2036	1-212-958-00	FUSIBLE 10 5%	1/2W F
L2001	1-410-471-11	INDUCTOR 12UH		R2037	1-216-037-00	METAL GLAZE 330 5%	1/10W
<TRANSISTOR>				R2038	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2001	8-729-230-49	TRANSISTOR 2SC2712-YG		R2039	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2002	8-729-230-49	TRANSISTOR 2SC2712-YG		R2040	1-216-035-00	METAL GLAZE 270 5%	1/10W
Q2003	8-729-230-49	TRANSISTOR 2SC2712-YG		R2041	1-216-037-00	METAL GLAZE 330 5%	1/10W
Q2004	8-729-230-49	TRANSISTOR 2SC2712-YG		R2042	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2005	8-729-230-49	TRANSISTOR 2SC2712-YG		R2043	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2006	8-729-230-49	TRANSISTOR 2SC2712-YG		R2044	1-216-035-00	METAL GLAZE 270 5%	1/10W
Q2007	8-729-230-46	TRANSISTOR 2SA1162-YG		R2045	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2008	8-729-230-49	TRANSISTOR 2SC2712-YG		R2046	1-216-037-00	METAL GLAZE 330 5%	1/10W
Q2009	8-729-230-49	TRANSISTOR 2SC2712-YG		R2047	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2010	8-729-230-49	TRANSISTOR 2SC2712-YG		R2048	1-216-035-00	METAL GLAZE 270 5%	1/10W
Q2011	8-729-230-49	TRANSISTOR 2SC2712-YG		R2049	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q2012	8-729-900-53	TRANSISTOR DTC114EK		R2050	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q2013	8-729-901-01	TRANSISTOR DTC114EK		R2051	1-216-025-00	METAL GLAZE 100 5%	1/10W
Q2015	8-729-230-49	TRANSISTOR 2SC2712-YG		R2052	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q2020	8-729-900-53	TRANSISTOR DTC114EK		R2053	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
Q2021	8-729-230-46	TRANSISTOR 2SA1162-YG		R2054	1-216-075-00	METAL GLAZE 12K 5%	1/10W
Q2022	8-729-230-46	TRANSISTOR 2SA1162-YG		R2055	1-216-107-00	METAL GLAZE 270K 5%	1/10W
Q2024	8-729-230-49	TRANSISTOR 2SC2712-YG		R2056	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2025	8-729-230-49	TRANSISTOR 2SC2712-YG		R2057	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2095	8-729-900-53	TRANSISTOR DTC114EK		R2058	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2096	8-729-900-53	TRANSISTOR DTC114EK		R2059	1-216-033-00	METAL GLAZE 220 5%	1/10W
<RESISTOR>				R2060	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2001	1-216-033-00	METAL GLAZE 220 5%	1/10W	R2061	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2002	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R2062	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2003	1-216-022-00	METAL GLAZE 75 5%	1/10W	R2063	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2004	1-216-022-00	METAL GLAZE 75 5%	1/10W	R2064	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2005	1-216-022-00	METAL GLAZE 75 5%	1/10W	R2065	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2006	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2066	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R2007	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2067	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
R2008	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2068	1-216-065-91	METAL GLAZE 4.7K 5%	1/10W
R2009	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2069	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2010	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2070	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2011	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2071	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2012	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2072	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2013	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2073	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2014	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2074	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2015	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2075	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2016	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2076	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2017	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2077	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2018	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2078	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2019	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2079	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2020	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2080	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2021	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2081	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2022	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2082	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2023	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2083	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2024	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2084	1-216-041-00	METAL GLAZE 470 5%	1/10W
R2025	1-216-107-00	METAL GLAZE 270K 5%	1/10W	R2085	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2026	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R2086	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R2027	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R2087	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R2028	1-216-033-00	METAL GLAZE 220 5%	1/10W	R2088	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
R2030	1-216-085-00	METAL GLAZE 33K 5%	1/10W	R2089	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R2031	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2090	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R2032	1-216-041-00	METAL GLAZE 470 5%	1/10W	R2091	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2033	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2092	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
R2034	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2093	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2035	1-216-017-00	METAL GLAZE 47 5%	1/10W	R2094	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R2095	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R2096	1-216-093-00	METAL GLAZE 68K 5%	1/10W
				R2097	1-216-049-00	METAL GLAZE 1K 5%	1/10W
				R2098	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W



U<sub>2</sub>U<sub>1</sub>

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R3023	1-249-433-11	CARBON 22K 5% 1/4W	
R3024	1-249-405-11	CARBON 100 5% 1/4W	
R3025	1-249-429-11	CARBON 10K 5% 1/4W	
R3026	1-215-409-00	METAL 330 1% 1/4W	
R3027	1-215-401-11	METAL 150 1% 1/4W	
R3028	1-215-401-11	METAL 150 1% 1/4W	
R3029	1-249-433-11	CARBON 22K 5% 1/4W	
R3030	1-249-405-11	CARBON 100 5% 1/4W	
R3031	1-249-429-11	CARBON 10K 5% 1/4W	
R3032	1-215-409-00	METAL 330 1% 1/4W	
R3033	1-215-415-00	METAL 560 1% 1/4W	
R3034	1-215-439-00	METAL 5.6K 1% 1/4W	
R3035	1-215-435-00	METAL 3.9K 1% 1/4W	
R3036	1-249-417-11	CARBON 1K 5% 1/4W	
R3037	1-249-417-11	CARBON 1K 5% 1/4W	
R3038	1-247-895-00	CARBON 470K 5% 1/4W	
R3039	1-249-421-11	CARBON 2.2K 5% 1/4W	
R3040	1-215-469-00	METAL 100K 1% 1/4W	
R3041	1-249-434-11	CARBON 27K 5% 1/4W	
R3042 $\Delta$	1-247-831-91	CARBON 1K 5% 1/4W	
R3043	1-249-425-11	CARBON 4.7K 5% 1/4W	
R3045	1-249-429-11	CARBON 10K 5% 1/4W	
R3046	1-215-428-00	METAL 2K 1% 1/4W	
R3047	1-215-445-00	METAL 10K 1% 1/4W	
R3048	1-249-437-11	CARBON 47K 5% 1/4W	
R3049	1-249-417-11	CARBON 1K 5% 1/4W	
R3051	1-214-837-11	METAL 75 1% 1/2W	
R3052	1-249-411-11	CARBON 330 5% 1/4W	
R3053	1-249-441-11	CARBON 100K 5% 1/4W	
R3054	1-249-425-11	CARBON 4.7K 5% 1/4W	
R3055	1-249-417-11	CARBON 1K 5% 1/4W	
R3056	1-249-417-11	CARBON 1K 5% 1/4W	
R3059	1-249-435-11	CARBON 33K 5% 1/4W	
R3070	1-249-417-11	CARBON 1K 5% 1/4W	
R3071	1-249-441-11	CARBON 100K 5% 1/4W	

## &lt;VARIABLE RESISTOR&gt;

RV3001	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K
RV3002	1-224-251-XX	RES, ADJ, METAL GLAZE 4.7K

## &lt;SWITCH&gt;

S3001	1-571-867-11	SWITCH, PUSH (1 KEY)
S3002	1-570-867-11	SWITCH, SLIDE
S3003	1-570-867-11	SWITCH, SLIDE
S3004	1-570-867-11	SWITCH, SLIDE

\*\*\*\*\*

\*A-1394-350-A U1 BOARD, COMPLETE  
\*\*\*\*\*

\*1-564-506-11 PLUG, CONNECTOR 3P  
\*1-564-512-11 PLUG, CONNECTOR 9P  
1-565-269-31 SOCKET, CONNECTOR (D-DUB,L) 9P

## &lt;CAPACITOR&gt;

C2001	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C2002	1-126-101-11	ELECT 100MF	20% 16V
C2003	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C2004	1-123-875-11	ELECT 10MF	20% 50V
C2005	1-124-477-11	ELECT 47MF	20% 16V
C2006	1-124-477-11	ELECT 47MF	20% 16V
C2007	1-124-477-11	ELECT 47MF	20% 16V

REF.NO. PART NO. DESCRIPTION REMARK

C2010	1-124-902-00	ELECT 0.47MF	20% 50V
C2011	1-130-728-00	FILM 0.0022MF	5% 50V
C2012	1-106-359-00	MYLAR 0.0047MF	10% 100V
C2013	1-124-902-00	ELECT 0.47MF	20% 50V
C2014	1-124-902-00	ELECT 0.47MF	20% 50V
C2015	1-124-907-11	ELECT 10MF	20% 50V
C2016	1-124-902-00	ELECT 0.47MF	20% 50V
C2017	1-124-907-11	ELECT 10MF	20% 50V
C2018	1-124-902-00	ELECT 0.47MF	20% 50V
C2019	1-136-298-00	FILM 0.0033MF	5% 100V
C2020	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
C2021	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C2023	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C2024	1-124-120-11	ELECT 220MF	20% 16V
C2025	1-135-155-21	TANTAL. CHIP 4.7MF	20% 10V
C2027	1-163-115-00	CERAMIC CHIP 82PF	5% 50V
C2028	1-126-101-11	ELECT 100MF	20% 16V
C2029	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C2030	1-126-101-11	ELECT 100MF	20% 16V
C2031	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C2032	1-124-126-00	ELECT 47MF	20% 16V
C2033	1-126-163-11	ELECT 4.7MF	20% 50V
C2034	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
C2035	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C2098	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
C2099	1-124-907-11	ELECT 10MF	20% 50V

## &lt;NEON LAMP&gt;

CF2001	1-519-526-11	LAMP, NEON
CF2002	1-519-526-11	LAMP, NEON
CF2003	1-519-526-11	LAMP, NEON

## &lt;COMPOSITION CIRCUIT BLOCK&gt;

CP2001	1-232-721-11	COMPOSITION CIRCUIT BLOCK
CP2002	1-232-096-00	COMPOSITION CIRCUIT BLOCK
CP2003	1-232-721-11	COMPOSITION CIRCUIT BLOCK
CP2004	1-232-096-00	COMPOSITION CIRCUIT BLOCK

## &lt;DIODE&gt;

D2001	8-719-104-34	DIODE 1S2836
D2011	8-719-404-46	DIODE MA110
D2012	8-719-404-46	DIODE MA110
D2013	8-719-404-46	DIODE MA110
D2024	8-719-104-34	DIODE 1S2836

D2030	8-719-104-34	DIODE 1S2836
D2033	8-719-400-18	DIODE MA152WK
D2035	8-719-104-34	DIODE 1S2836
D2040	8-719-104-34	DIODE 1S2836
D2042	8-719-400-18	DIODE MA152WK

D2045	8-719-104-34	DIODE 1S2836
-------	--------------	--------------

## &lt;IC&gt;

IC2001	8-759-634-10	IC M52001SP
IC2002	8-759-931-07	IC SN74LS365ANS
IC2003	8-759-634-03	IC M54480P
IC2005	8-759-930-50	IC SN74LS157NS
IC2006	8-759-930-50	IC SN74LS157NS

IC2010	8-759-982-05	IC RC7805FA
--------	--------------	-------------

H1

U2

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
S406	1-570-577-11	SWITCH, PUSH		D3006	8-719-911-19	DIODE 1SS119	
S407	1-570-577-11	SWITCH, PUSH		D3007	8-719-911-19	DIODE 1SS119	
S408	1-570-577-11	SWITCH, PUSH		D3008	8-719-911-19	DIODE 1SS119	
*****				D3009	8-719-911-19	DIODE 1SS119	
*A-1375-099-A U2 BOARD, COMPLETE				D3010	8-719-109-81	DIODE RD4.7ESB2	
*****				D3011	8-719-109-81	DIODE RD4.7ESB2	
*1-564-512-11 PLUG, CONNECTOR 9P				D3012	8-719-109-81	DIODE RD4.7ESB2	
<CAPACITOR>				<IC>			
C3001	1-124-477-11	ELECT	47MF 20% 16V	IC3001	1-808-916-11	MODULE, BUFFER (BUF-1)	
C3002	1-124-477-11	ELECT	47MF 20% 16V	IC3002	1-808-916-11	MODULE, BUFFER (BUF-1)	
C3003	1-124-477-11	ELECT	47MF 20% 16V	IC3003	1-808-916-11	MODULE, BUFFER (BUF-1)	
C3004	1-124-477-11	ELECT	47MF 20% 16V	IC3004	8-759-634-10	IC M52001SP	
C3005	1-124-477-11	ELECT	47MF 20% 16V	IC3005	8-759-902-21	IC SN74LS221N	
C3006	1-124-477-11	ELECT	47MF 20% 16V	IC3006	8-759-822-05	IC LA7213	
C3007	1-124-477-11	ELECT	47MF 20% 16V	IC3007	8-752-039-40	IC CXA1044BP	
C3008	1-124-477-11	ELECT	47MF 20% 16V	IC3008	8-759-982-21	IC RC78L05A	
C3009	1-124-477-11	ELECT	47MF 20% 16V	IC3009	8-759-700-42	IC NJM2904D	
C3010	1-124-477-11	ELECT	47MF 20% 16V	<COIL>			
C3011	1-124-477-11	ELECT	47MF 20% 16V	L3001	1-412-427-11	INDUCTOR 470UH	
C3012	1-124-477-11	ELECT	47MF 20% 16V	L3002	1-408-425-00	INDUCTOR 220UH	
C3013	1-124-477-11	ELECT	47MF 20% 16V	L3003	1-408-425-00	INDUCTOR 220UH	
C3014	1-126-157-11	ELECT	10MF 20% 16V	<TRANSISTOR>			
C3015	1-126-157-11	ELECT	10MF 20% 16V	Q3001	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3016	1-136-153-00	FILM	0.01MF 5% 50V	Q3002	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3017	1-136-153-00	FILM	0.01MF 5% 50V	Q3003	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3018	1-136-153-00	FILM	0.01MF 5% 50V	Q3004	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3019	1-124-477-11	ELECT	47MF 20% 16V	Q3005	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3020	1-126-101-11	ELECT	100MF 20% 16V	Q3006	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C3021	1-136-165-00	FILM	0.1MF 5% 50V	Q3007	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C3022	1-124-273-00	ELECT	3.3MF 20% 50V	Q3008	8-729-801-46	TRANSISTOR 2SC3064-F	
C3023	1-136-173-00	FILM	0.47MF 5% 50V	Q3009	8-729-801-46	TRANSISTOR 2SC3064-F	
C3024	1-136-173-00	FILM	0.47MF 5% 50V	Q3010	8-729-801-46	TRANSISTOR 2SC3064-F	
C3025	1-124-465-00	ELECT	0.47MF 20% 50V	Q3011	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C3026	1-106-351-00	MYLAR	0.0022MF 10% 100V	<RESISTOR>			
C3027	1-102-112-00	CERAMIC	330PF 10% 50V	R3001	1-214-702-00	METAL 75 1% 1/4W	
C3028	1-126-157-11	ELECT	10MF 20% 16V	R3002	1-214-702-00	METAL 75 1% 1/4W	
C3029	1-124-465-00	ELECT	0.47MF 20% 50V	R3003	1-214-702-00	METAL 75 1% 1/4W	
C3030	1-126-157-11	ELECT	10MF 20% 16V	R3004	1-249-425-11	CARBON 4.7K 5% 1/4W	
C3031	1-124-465-00	ELECT	0.47MF 20% 50V	R3005	1-215-423-00	METAL 1.2K 1% 1/4W	
C3032	1-136-157-00	FILM	0.022MF 5% 50V	R3006	1-215-439-00	METAL 5.6K 1% 1/4W	
C3033	1-102-961-00	CERAMIC	27PF 5% 50V	R3007	1-215-431-00	METAL 2.7K 1% 1/4W	
C3034	1-102-112-00	CERAMIC	330PF 10% 50V	R3008	1-249-405-11	CARBON 100 5% 1/4W	
C3035	1-101-005-00	CERAMIC	0.022MF 5% 50V	R3009	1-249-421-11	CARBON 2.2K 5% 1/4W	
C3036	1-101-005-00	CERAMIC	0.022MF 5% 50V	R3010	1-249-397-11	CARBON 22 5% 1/4W	
C3037	1-101-880-00	CERAMIC	47PF 5% 50V	R3011	1-249-421-11	CARBON 2.2K 5% 1/4W	
C3039	1-102-973-00	CERAMIC	100PF 5% 50V	R3012	1-249-397-11	CARBON 22 5% 1/4W	
C3040	1-102-112-00	CERAMIC	330PF 10% 50V	R3013	1-249-421-11	CARBON 2.2K 5% 1/4W	
C3041	1-164-085-11	CERAMIC	0.001MF 10% 50V	R3014	1-249-397-11	CARBON 22 5% 1/4W	
C3042	1-126-101-11	ELECT	100MF 20% 16V	R3015	1-215-401-11	METAL 150 1% 1/4W	
C3043	1-124-477-11	ELECT	47MF 20% 16V	R3016	1-215-401-11	METAL 150 1% 1/4W	
C3044	1-102-074-00	CERAMIC	0.001MF 10% 50V	R3017	1-249-433-11	CARBON 22K 5% 1/4W	
C3050	1-136-157-00	FILM	0.022MF 5% 50V	R3018	1-249-429-11	CARBON 10K 5% 1/4W	
<DIODE>				R3019	1-249-405-11	CARBON 100 5% 1/4W	
D3001	8-719-911-19	DIODE 1SS119		R3020	1-215-409-00	METAL 330 1% 1/4W	
D3002	8-719-911-19	DIODE 1SS119		R3021	1-215-401-11	METAL 150 1% 1/4W	
D3003	8-719-911-19	DIODE 1SS119		R3022	1-215-401-11	METAL 150 1% 1/4W	
D3004	8-719-911-19	DIODE 1SS119					
D3005	8-719-911-19	DIODE 1SS119					

C

H<sub>2</sub>H<sub>1</sub>

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q705	8-729-200-17	TRANSISTOR 2SA1091-0		<DIODE>			
Q706	8-729-200-17	TRANSISTOR 2SA1091-0		D431	8-719-915-45	DIODE SLP162B	
Q707	8-729-326-11	TRANSISTOR 2SC2611		*4-362-612-00	HOLDER (B), LED; D431		
Q708	8-729-200-17	TRANSISTOR 2SA1091-0		D432	8-719-311-90	DIODE SEL1922D-C	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0		*4-375-108-01	HOLDER, LED; D432		
Q710	8-729-255-12	TRANSISTOR 2SC2551-0		D433	8-719-311-90	DIODE SEL1922D-C	
Q712	8-729-255-12	TRANSISTOR 2SC2551-0		*4-375-108-01	HOLDER, LED; D433		
Q720	8-729-119-78	TRANSISTOR 2SC2785-HFE		D434	8-719-311-90	DIODE SEL1922D-C	
Q721	8-729-119-78	TRANSISTOR 2SC2785-HFE		*4-375-108-01	HOLDER, LED; D434		
Q722	8-729-119-78	TRANSISTOR 2SC2785-HFE		D435	8-719-311-90	DIODE SEL1922D-C	
				*4-375-108-01	HOLDER, LED; D435		
<RESISTOR>				*****			
R701	1-216-347-11	METAL OXIDE	0.68 5% 1W F	*1-629-454-11	H1 BOARD		
R702	1-202-848-00	SOLID	680K 10% 1/2W	*****			
R703	1-202-838-00	SOLID	100K 10% 1/2W	*1-564-505-11	PLUG, CONNECTOR 2P		
R704	1-202-846-00	SOLID	470K 10% 1/2W	*1-564-506-11	PLUG, CONNECTOR 3P		
R705	1-202-549-00	SOLID	100 10% 1/2W	*1-564-509-11	PLUG, CONNECTOR 6P		
R706	1-202-838-00	SOLID	100K 10% 1/2W	*1-564-510-11	PLUG, CONNECTOR 7P		
R707	1-202-842-11	SOLID	220K 10% 1/2W	*1-564-512-11	PLUG, CONNECTOR 9P		
R708	1-202-818-00	SOLID	1K 10% 1/2W				
R709	1-202-818-00	SOLID	1K 10% 1/2W	*1-564-514-11	PLUG, CONNECTOR 11P		
R710	1-202-818-00	SOLID	1K 10% 1/2W				
R711	1-202-837-00	SOLID	82K 10% 1/2W	<CAPACITOR>			
R712	1-202-842-11	SOLID	220K 10% 1/2W	C401	1-102-129-00	CERAMIC	0.01MF 10% 50V
R713	1-216-508-11	METAL OXIDE	3.9K 5% 5W F	C402	1-124-915-11	ELECT	10MF 20% 16V
R714	1-249-409-11	CARBON	220 5% 1/4W	C403	1-102-129-00	CERAMIC	0.01MF 10% 50V
R715	1-249-429-11	CARBON	10K 5% 1/4W F				
R716	1-247-704-11	CARBON	220 5% 1/4W F	<DIODE>			
R717	1-247-883-00	CARBON	150K 5% 1/4W	D401	8-719-800-94	DIODE TLUR144	
R718	1-216-508-11	METAL OXIDE	3.9K 5% 5W F	*4-380-083-01	HOLDER (E), LED; D401		
R719	1-247-704-11	CARBON	220 5% 1/4W				
R720	1-249-429-11	CARBON	10K 5% 1/4W F	<RESISTOR>			
R721	1-247-704-11	CARBON	220 5% 1/4W F	R401	1-249-438-11	CARBON	56K 5% 1/4W
R722	1-247-887-00	CARBON	220K 5% 1/4W	R402	1-249-441-11	CARBON	100K 5% 1/4W
R723	1-216-508-11	METAL OXIDE	3.9K 5% 5W F	R403	1-249-421-11	CARBON	2.2K 5% 1/4W
R724	1-247-704-11	CARBON	220 5% 1/4W	R404	1-249-405-11	CARBON	100 5% 1/4W
R725	1-247-725-11	CARBON	10K 5% 1/4W F	R405	1-215-430-00	METAL	2.4K 1% 1/4W
R726	1-247-704-11	CARBON	220 5% 1/4W F	R406	1-215-447-00	METAL	12K 1% 1/4W
R727	1-249-440-11	CARBON	82K 5% 1/4W	R409	1-249-425-11	CARBON	4.7K 5% 1/4W
R741	1-249-429-11	CARBON	10K 5% 1/4W				
R742	1-249-429-11	CARBON	10K 5% 1/4W	<VARIABLE RESISTOR>			
R743	1-215-902-11	METAL OXIDE	47K 5% 1W F	RV401	1-241-285-11	RES, VAR, CARBON 20K	
R744	1-247-725-11	CARBON	10K 5% 1/4W F	RV402	1-241-295-11	RES, VAR, CARBON(WITH SW) 10KX4	
R745	1-247-713-11	CARBON	1K 5% 1/4W F	RV403	1-241-295-11	RES, VAR, CARBON(WITH SW) 10KX4	
R746	1-215-902-11	METAL OXIDE	47K 5% 2W F	RV404	1-241-295-11	RES, VAR, CARBON(WITH SW) 10KX4	
R777	1-249-441-11	CARBON	100K 5% 1/4W	RV405	1-241-295-11	RES, VAR, CARBON(WITH SW) 10KX4	
R799	1-202-842-11	SOLID	220K 10% 1/2W	RV406	1-241-296-11	RES, VAR, CARBON 10KX3/20K	
R800	1-247-887-00	CARBON	220K 5% 1/4W	RV407	1-241-296-11	RES, VAR, CARBON 10KX3/20K	
R801	1-247-887-00	CARBON	220K 5% 1/4W	RV408	1-241-285-11	RES, VAR, CARBON 20K	
R802	1-247-887-00	CARBON	220K 5% 1/4W	RV409	1-241-296-11	RES, VAR, CARBON 10KX3/20K	
				RV410	1-241-296-11	RES, VAR, CARBON 10KX3/20K	
<VARIABLE RESISTOR>				<SWITCH>			
RV701	1-226-114-00	RES, ADJ, METAL GLAZE 2.2M		S401	1-570-577-11	SWITCH, PUSH	
RV702A	1-230-619-11	RES, ADJ, METAL GLAZE 110M		S402	1-570-577-11	SWITCH, PUSH	
RV703	1-228-731-00	RES, ADJ, CERAMIC CARBON 470K		S403	1-570-577-11	SWITCH, PUSH	
RV705	1-228-729-00	RES, ADJ, CERAMIC CARBON 220K		S404	1-570-577-11	SWITCH, PUSH	
RV706	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K		S405	1-570-577-11	SWITCH, PUSH	
*****							
*1-629-455-11	H2 BOARD						
	*****						

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are criti-  
cal for safety.  
Replace only with part number  
specified.

G

G3

C

REF.NO.	PART NO.	DESCRIPTION	REMARK
R641	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
R642	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
R643	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
R644	1-216-384-11	METAL OXIDE 0.39 5% 3W	F
R645	1-216-341-11	METAL OXIDE 0.22 5% 1W	F
R646	1-216-357-00	WIREWOUND 4.7 10% 1/2W	
R647	1-249-417-11	CARBON 1K 5% 1/4W	
R648	1-249-417-11	CARBON 1K 5% 1/4W	
R649	1-216-389-11	METAL OXIDE 1 5% 3W	F
R650	1-246-545-00	CARBON 1M 5% 1/4W	
R652	1-249-429-11	CARBON 10K 5% 1/4W	
R659	1-216-384-11	METAL OXIDE 0.39 5% 3W	F
R661	1-216-343-00	WIREWOUND 0.33 10% 1/2W	
R662	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
R670	1-216-343-00	WIREWOUND 0.33 10% 1/2W	
R672	1-216-355-11	METAL OXIDE 3.3 5% 1W	F
<VARIABLE RESISTOR>			
RV621	1-226-772-11	RES, ADJ, METAL GLAZE 4.7K	
RV622	1-226-703-11	RES, ADJ, METAL GLAZE 10K	
RV624	1-228-995-00	RES, ADJ, CARBON 22K	
RV630	1-226-772-11	RES, ADJ, METAL GLAZE 4.7K	
<TRANSFORMER>			
T621	1-424-240-11	TRANSFORMER, POWER REGULATION	
T622	1-424-202-11	TRANSFORMER, POWER INSULATED	
T623	1-424-020-11	PRT	
T624	1-424-201-11	TRANSFORMER, POWER INSULATED	
T626	1-424-023-12	TRANSFORMER, LINE FILTER	
*****			
*1-632-200-11	G3 BOARD	*****	
*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P		
*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		
<CAPACITOR>			
C680	1-123-948-51	ELECT 22MF 20% 250V	
C684	1-124-624-51	ELECT 1MF 20% 200V	
C685	1-124-624-51	ELECT 1MF 20% 200V	
<DIODE>			
D680	8-719-111-85	DIODE RD5.1ES-T2B1	
D685	8-719-901-93	DIODE ERC38-06	
<TRANSISTOR>			
Q680	8-729-302-33	TRANSISTOR 2SC2023-Y	
*4-381-906-01	SPRING (F); Q680		
*4-381-908-01	INSULATOR (B); Q680		
Q681	8-729-168-82	TRANSISTOR 2SC2688-L	
Q682	8-729-168-82	TRANSISTOR 2SC2688-L	
Q683	8-729-302-33	TRANSISTOR 2SC2023-Y	
<RESISTOR>			
R680	1-247-835-51	CARBON 1.5K 5% 1/4W	
R681	1-215-904-81	METAL OXIDE 100K 5% 2W	F
R682	1-247-843-31	CARBON 3.3K 5% 1/4W	
R683	1-246-533-25	CARBON 330K 5% 1/4W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R684	1-246-533-25	CARBON 330K 5% 1/4W	
R685	1-246-481-25	CARBON 2.2K 5% 1/4W	
<VARIABLE RESISTOR>			
RV680	1-226-774-31	RES, ADJ, METAL GLAZE 47K	
*****			
*A-1330-982-A	C BOARD, COMPLETE	*****	
*1-506-371-00	PIN, CONNECTOR 2P		
*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		
*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P		
*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		
*1-526-798-27	SOCKET, PICTURE TUBE		
*1-564-506-11	PLUG, CONNECTOR 3P		
*1-564-512-11	PLUG, CONNECTOR 9P		
*4-379-160-01	COVER (REAR LID), CV		
*4-379-167-01	COVER (MAIN), CV		
<CAPACITOR>			
C701	1-162-114-00	CERAMIC 0.0047MF	2KV
C702	1-136-601-11	FILM 0.01MF	10% 630V
C703	1-124-915-11	ELECT 10MF	20% 50V
C704	1-123-946-00	ELECT 4.7MF	20% 250V
C705	1-106-367-00	MYLAR 0.01MF	10% 200V
C706	1-129-751-00	FILM 0.1MF	10% 400V
C707	1-102-050-00	CERAMIC 0.01MF	99% 500V
C708	1-124-126-00	ELECT 47MF	20% 16V
C709	1-102-125-00	CERAMIC 0.0047MF	10% 50V
C714	1-162-622-11	CERAMIC 330PF	10% 6.3KV
C715	1-102-074-00	CERAMIC 0.001MF	10% 50V
<DIODE>			
D701	8-719-911-19	DIODE 1SS119	
D702	8-719-911-19	DIODE 1SS119	
D703	8-719-901-83	DIODE 1SS83	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
D706	8-719-901-83	DIODE 1SS83	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-901-83	DIODE 1SS83	
D710	8-719-901-83	DIODE 1SS83	
D720	8-719-901-83	DIODE 1SS83	
D721	8-719-901-83	DIODE 1SS83	
D722	8-719-901-83	DIODE 1SS83	
<COIL>			
L701	1-408-072-00	INDUCTOR 47UH	
L702	1-408-111-00	INDUCTOR 3.3UH	
L704	1-408-111-00	INDUCTOR 3.3UH	
L706	1-408-111-00	INDUCTOR 3.3UH	
<TRANSISTOR>			
Q701	8-729-326-11	TRANSISTOR 2SC2611	
Q702	8-729-200-17	TRANSISTOR 2SA1091-0	
Q703	8-729-200-17	TRANSISTOR 2SA1091-0	
Q704	8-729-326-11	TRANSISTOR 2SC2611	


A


G


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
TH1501	1-800-198-XX	THERMISTOR S-1K		D652	8-719-970-87	DIODE ERA38-06	
*****				D653	8-719-500-71	DIODE D8LC40	
*A-1316-102-A	G BOARD, COMPLETE	*****		D655	8-719-510-02	DIODE D1NS4	
	(INCLUDING G3 BOARD)			D660	8-719-970-87	DIODE ERA38-06	
*1-560-436-00	HORIZONTAL PIN ASSY 3P			<IC>			
*4-341-751-01	EYELET EY1-EY47			IC621	1-235-774-21	PROTECTOR MODULE (PM-7A)	
4-384-424-01	SHEET (B), INSULATING			IC623	1-235-508-11	PROTECTOR MODULE (PM-6)	
<CAPACITOR>				IC624	1-236-236-11	POWER MODULE (DM-37)	
C620	1-124-441-11	ELECT	3900MF	20%	25V		
C621	1-126-104-11	ELECT	470MF	20%	35V		
C622	1-127-465-00	ELECT	10MF	20%	400V		
C624	1-124-360-00	ELECT	1000MF	20%	16V		
C625	1-164-144-11	CERAMIC	0.0015MF	10%	1KV		
C628	1-124-347-00	ELECT	100MF	20%	160V		
C630	1-126-096-11	ELECT	10MF	20%	25V		
C638	1-164-144-11	CERAMIC	0.0015MF	10%	1KV		
C639	1-164-144-11	CERAMIC	0.0015MF	10%	1KV		
C640	1-130-321-00	FILM	0.1MF	5%	100V		
C641	1-164-143-11	CERAMIC	0.001MF	10%	1KV		
C644	1-164-143-11	CERAMIC	0.001MF	10%	1KV		
C646	1-130-323-00	FILM	0.12MF	5%	100V		
C648	1-130-323-00	FILM	0.12MF	5%	100V		
C649	1-162-135-11	CERAMIC	560PF	10%	2KV		
C650	1-124-472-11	ELECT	470MF	20%	10V		
C651	1-124-907-11	ELECT	10MF	20%	50V		
C652	1-136-157-00	FILM	0.022MF	5%	50V		
C654	1-136-725-11	FILM	0.039MF	5%	1.25KV		
C655	1-136-627-11	FILM	0.022MF	3%	1KV		
C656	1-136-627-11	FILM	0.022MF	3%	1KV		
C657	1-102-038-00	CERAMIC	0.001MF		500V		
C662	1-130-321-00	FILM	0.1MF	5%	100V		
C663	1-164-143-11	CERAMIC	0.001MF	10%	1KV		
C664	1-162-116-00	CERAMIC	680PF	10%	2KV		
C665	1-162-134-11	CERAMIC	470PF	10%	2KV		
C670	1-136-721-21	FILM	1.5MF	10%	400V		
C671	1-124-667-11	ELECT	10MF	20%	100V		
C672	1-162-135-11	CERAMIC	560PF	10%	2KV		
C673	1-164-143-11	CERAMIC	0.001MF	10%	1KV		
C674	1-102-038-00	CERAMIC	0.001MF		500V		
C675	1-162-116-00	CERAMIC	680PF	10%	2KV		
C676	1-124-477-11	ELECT	47MF	20%	16V		
C677	1-164-144-11	CERAMIC	0.0015MF	10%	1KV		
C682	1-162-116-00	CERAMIC	680PF	10%	2KV		
<DIODE>				<COIL>			
D621	8-719-300-33	DIODE RU-3AM		L634	1-410-396-41	FERRITE BEAD INDUCTOR	
D622	8-719-500-69	DIODE S3V10SS		L636	1-410-396-41	FERRITE BEAD INDUCTOR	
D623	8-719-970-87	DIODE ERA38-06		L637	1-425-612-00	COIL, ARE-CORE	
D624	8-719-981-00	DIODE ERC81-004		L640	1-410-396-41	FERRITE BEAD INDUCTOR	
D625	8-719-300-33	DIODE RU-3AM		L643	1-425-612-00	COIL, ARE-CORE	
D626	8-719-500-69	DIODE S3V10SS		L644	*1-425-974-00	COIL, AIRCORE (QF)	
D627	8-719-500-69	DIODE S3V10SS		L646	1-410-396-41	FERRITE BEAD INDUCTOR	
D628	8-719-300-33	DIODE RU-3AM		L648	*1-425-974-00	COIL, AIRCORE (QF)	
D631	8-719-300-33	DIODE RU-3AM		L649	1-425-612-00	COIL, ARE-CORE	
D632	8-719-510-13	DIODE D1OSC4MR		L650	1-459-155-00	COIL (WITH CORE) 45UH	
D636	8-719-510-12	DIODE D1OSC4M		L651	1-459-155-00	COIL (WITH CORE) 45UH	
D640	8-719-300-33	DIODE RU-3AM		L652	1-459-155-00	COIL (WITH CORE) 45UH	
D641	8-719-500-69	DIODE S3V10SS		L653	1-410-396-41	FERRITE BEAD INDUCTOR	
D651	8-719-970-87	DIODE ERA38-06		L654	1-459-787-11	COIL, CHOKE 3.3UH	
				L655	1-410-396-41	FERRITE BEAD INDUCTOR	
				L656	1-410-396-41	FERRITE BEAD INDUCTOR	
				L657	1-410-396-41	FERRITE BEAD INDUCTOR	
				L658	1-410-396-41	FERRITE BEAD INDUCTOR	
				L659	1-410-396-41	FERRITE BEAD INDUCTOR	
				L660	1-410-396-41	FERRITE BEAD INDUCTOR	
				L661	1-410-396-41	FERRITE BEAD INDUCTOR	
				L662	1-425-612-00	COIL, ARE-CORE	
				L663	1-410-396-41	FERRITE BEAD INDUCTOR	
				<TRANSISTOR>			
				Q621	8-729-921-62	TRANSISTOR 2SC4058N	
				*4-391-704-01	HOLDER (A), TR; Q621		
				Q622	8-729-921-62	TRANSISTOR 2SC4058N	
				*4-391-704-01	HOLDER (A), TR; Q622		
				Q623	8-729-904-98	TRANSISTOR 2SC4054P	
				*4-381-906-01	SPRING (F); Q623		
				Q624	8-729-904-98	TRANSISTOR 2SC4054P	
				*4-381-906-01	SPRING (F); Q624		
				Q625	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q626	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				<RESISTOR>			
				R620	1-216-357-00	METAL OXIDE	4.7 5% 1W F
				R621	1-249-405-11	CARBON	100 5% 1/4W F
				R626	1-216-362-11	METAL OXIDE	0.27 5% 2W F
				R627	1-202-844-00	SOLID	330K 10% 1/2W
				R631	1-202-844-00	SOLID	330K 10% 1/2W
				R632	1-202-844-00	SOLID	330K 10% 1/2W
				R633	1-216-365-00	METAL OXIDE	0.47 5% 2W F
				R634	1-216-361-00	METAL OXIDE	0.22 5% 2W F
				R635	1-216-365-00	METAL OXIDE	0.47 5% 2W F
				R636	1-202-844-00	SOLID	330K 10% 1/2W
				R640	1-216-389-11	METAL OXIDE	1 5% 3W F





— 105 —

A

• The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R2534	1-249-421-11	CARBON	2.2K 5% 1/4W	R3519	1-249-429-11	CARBON	10K 5% 1/4W
R2535	1-249-421-11	CARBON	2.2K 5% 1/4W	R3520	1-249-417-11	CARBON	1K 5% 1/4W
R2536	1-215-429-00	METAL	2.2K 1% 1/4W	R3521	1-249-405-11	CARBON	100 5% 1/4W
R2537	1-247-895-00	CARBON	470K 5% 1/4W	R3522	1-249-429-11	CARBON	10K 5% 1/4W
R2539	1-249-429-11	CARBON	10K 5% 1/4W	R3523	1-249-429-11	CARBON	10K 5% 1/4W
R2540	1-249-409-11	CARBON	220 5% 1/4W	R3524	1-249-429-11	CARBON	10K 5% 1/4W
R2541	1-249-405-11	CARBON	100 5% 1/4W	R3525	1-249-429-11	CARBON	10K 5% 1/4W
R2542	1-215-436-00	METAL	4.3K 1% 1/4W	R3526	1-249-429-11	CARBON	10K 5% 1/4W
 R2543A		METAL	1/4W	R3527	1-249-429-11	CARBON	10K 5% 1/4W
R2544	1-215-415-00	METAL	560 1% 1/4W	R3534	1-249-437-11	CARBON	47K 5% 1/4W
R2545	1-215-459-00	METAL	39K 1% 1/4W	R3535	1-249-421-11	CARBON	2.2K 5% 1/4W
R2546	1-215-459-00	METAL	39K 1% 1/4W	R3536	1-249-417-11	CARBON	1K 5% 1/4W
R2547	1-249-429-11	CARBON	10K 5% 1/4W	R3537	1-249-417-11	CARBON	1K 5% 1/4W
R2548	1-247-887-00	CARBON	220K 5% 1/4W	R3538	1-249-431-11	CARBON	15K 5% 1/4W
R2549	1-249-435-11	CARBON	33K 5% 1/4W	R3539	1-249-417-11	CARBON	1K 5% 1/4W
R2550	1-249-429-11	CARBON	10K 5% 1/4W	R3540	1-249-417-11	CARBON	1K 5% 1/4W
R2551	1-249-406-11	CARBON	120 5% 1/4W	R3541	1-249-433-11	CARBON	22K 5% 1/4W
R2552	1-215-413-00	METAL	470 1% 1/4W	R3542	1-249-429-11	CARBON	10K 5% 1/4W
R2553	1-247-864-11	CARBON	24K 5% 1/4W	R3543	1-249-429-11	CARBON	10K 5% 1/4W
R2554	1-249-441-11	CARBON	100K 5% 1/4W	R3544	1-249-429-11	CARBON	10K 5% 1/4W
 R2555A		METAL	1/4W	 R3546A		METAL	1/4W
R2556	1-249-421-11	CARBON	2.2K 5% 1/4W	R3547	1-215-449-00	METAL	15K 1% 1/4W
R2558	1-249-417-11	CARBON	1K 5% 1/4W	R3548	1-247-895-00	CARBON	470K 5% 1/4W
R2559	1-249-412-11	CARBON	390 5% 1/4W	R3549	1-249-405-11	CARBON	100 5% 1/4W
R2563	1-215-431-00	METAL	2.7K 1% 1/4W	R3556	1-249-417-11	CARBON	1K 5% 1/4W
R2564	1-215-445-00	METAL	10K 1% 1/4W	R3557	1-249-429-11	CARBON	10K 5% 1/4W
R2565	1-215-433-00	METAL	3.3K 1% 1/4W	R3558	1-247-858-11	CARBON	13K 5% 1/4W
R2566	1-215-390-00	METAL	51 1% 1/4W	R3559	1-249-436-11	CARBON	39K 5% 1/4W
R2567	1-215-445-00	METAL	10K 1% 1/4W	R3560	1-249-429-11	CARBON	10K 5% 1/4W
R2568	1-247-899-11	CARBON	680K 5% 1/4W	R3561	1-215-416-00	METAL	620 1% 1/4W
R2572	1-247-881-00	CARBON	120K 5% 1/4W	R3562	1-214-735-00	METAL	1.8K 1% 1/4W
R2573	1-215-397-00	METAL	100 1% 1/4W	R3562	1-214-737-00	METAL	2.2K 1% 1/4W
R2574	1-249-429-11	CARBON	10K 5% 1/4W	R3562	1-214-739-00	METAL	2.7K 1% 1/4W
R2575	1-215-475-00	METAL	180K 1% 1/4W	R3562	1-214-742-00	METAL	3.6K 1% 1/4W
R2576	1-215-429-00	METAL	2.2K 1% 1/4W	R3562	1-214-745-00	METAL	4.7K 1% 1/4W
R2577	1-215-439-00	METAL	5.6K 1% 1/4W	R3562	1-214-753-00	METAL	10K 1% 1/4W
R2578	1-215-469-00	METAL	100K 1% 1/4W	R3562	1-214-765-00	METAL	33K 1% 1/4W
R2579	1-215-441-00	METAL	6.8K 1% 1/4W	R3562	1-214-777-00	METAL	100K 1% 1/4W
R2580	1-215-412-00	METAL	430 1% 1/4W	R3563	1-247-901-11	CARBON	820K 5% 1/4W
R2581	1-215-421-00	METAL	1K 1% 1/4W	R3564	1-249-417-11	CARBON	1K 5% 1/4W
R2583	1-249-429-11	CARBON	10K 5% 1/4W	R3565	1-249-435-11	CARBON	33K 5% 1/4W
R2584	1-215-403-00	METAL	180 1% 1/4W	R3566	1-249-413-11	CARBON	470 5% 1/4W
R2585	1-249-429-11	CARBON	10K 5% 1/4W	R3567	1-249-393-11	CARBON	10 5% 1/4W
R2586	1-215-475-00	METAL	180K 1% 1/4W	R3568	1-247-895-00	CARBON	470K 5% 1/4W
R2587	1-215-434-00	METAL	3.6K 1% 1/4W	R3576	1-249-405-11	CARBON	100 5% 1/4W
R2588	1-215-436-00	METAL	4.3K 1% 1/4W	R3577	1-249-434-11	CARBON	27K 5% 1/4W
R2589	1-215-479-00	METAL	270K 1% 1/4W	R3578	1-249-420-11	CARBON	1.8K 5% 1/4W
R2590	1-215-437-00	METAL	4.7K 1% 1/4W	R3579	1-215-415-00	METAL	560 1% 1/4W
R2591	1-215-432-00	METAL	3K 1% 1/4W	R3580	1-215-424-00	METAL	1.3K 1% 1/4W
R2592	1-215-401-11	METAL	150 1% 1/4W	R3581	1-215-421-00	METAL	1K 1% 1/4W
R2593	1-249-429-11	CARBON	10K 5% 1/4W	R3582	1-249-433-11	CARBON	22K 5% 1/4W
R2594	1-215-436-00	METAL	4.3K 1% 1/4W	R3583	1-249-431-11	CARBON	15K 5% 1/4W
R2595	1-249-429-11	CARBON	10K 5% 1/4W	R3584	1-249-411-11	CARBON	330 5% 1/4W
R2596	1-215-477-00	METAL	220K 1% 1/4W	R3585	1-249-410-11	CARBON	270 5% 1/4W
R2597	1-215-390-00	METAL	51 1% 1/4W	R3586	1-249-425-11	CARBON	4.7K 5% 1/4W
R2598	1-215-434-00	METAL	3.6K 1% 1/4W	R3587	1-215-434-00	METAL	3.6K 1% 1/4W
R3504	1-249-429-11	CARBON	10K 5% 1/4W	R3588	1-249-411-11	CARBON	330 5% 1/4W
R3505	1-249-417-11	CARBON	1K 5% 1/4W	 R3589A		METAL	1/4W
R3506	1-249-429-11	CARBON	10K 5% 1/4W	R3591	1-247-876-11	CARBON	75K 5% 1/4W
R3507	1-249-417-11	CARBON	1K 5% 1/4W	R3592	1-249-417-11	CARBON	1K 5% 1/4W
R3512	1-249-411-11	CARBON	330 5% 1/4W	R3593	1-249-429-11	CARBON	10K 5% 1/4W
R3513	1-215-442-00	METAL	7.5K 1% 1/4W	R3594	1-249-417-11	CARBON	1K 5% 1/4W
R3514	1-249-437-11	CARBON	47K 5% 1/4W	R3595	1-249-429-11	CARBON	10K 5% 1/4W
R3518	1-249-417-11	CARBON	1K 5% 1/4W				

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

• The components identified by  $\Delta$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R586	1-249-429-11	CARBON	10K 5% 1/4W	R1562	1-247-883-00	CARBON	150K 5% 1/4W
R587	1-249-417-11	CARBON	1K 5% 1/4W	R1563	1-249-421-11	CARBON	2.2K 5% 1/4W
R588	1-249-422-11	CARBON	2.7K 5% 1/4W	R1564	1-214-753-00	METAL	10K 1% 1/4W
R589	1-249-429-11	CARBON	10K 5% 1/4W	R1565	1-249-426-11	CARBON	5.6K 5% 1/4W
R590	1-249-429-11	CARBON	10K 5% 1/4W	R1566	1-249-433-11	CARBON	22K 5% 1/4W
R591	1-249-429-11	CARBON	10K 5% 1/4W	R1567	1-249-416-11	CARBON	820 5% 1/4W
R592	1-249-433-11	CARBON	22K 5% 1/4W	R1568	1-247-746-11	CARBON	390 5% 1/2W F
R1502	1-249-405-11	CARBON	100 5% 1/4W	R1577	1-249-433-11	CARBON	22K 5% 1/4W
R1503	1-247-887-00	CARBON	220K 5% 1/4W	R1578	1-249-433-11	CARBON	22K 5% 1/4W
R1504	1-249-405-11	CARBON	100 5% 1/4W	R1579	1-249-429-11	CARBON	10K 5% 1/4W
R1505	1-249-429-11	CARBON	10K 5% 1/4W	R1580	1-249-409-11	CARBON	220 5% 1/4W
R1508	1-249-417-11	CARBON	1K 5% 1/4W	R1581	1-249-425-11	CARBON	4.7K 5% 1/4W
R1510	1-247-701-11	CARBON	120 5% 1/4W F	R1582	1-249-426-11	CARBON	5.6K 5% 1/4W
R1511	1-249-429-11	CARBON	10K 5% 1/4W	R1583	1-249-427-11	CARBON	6.8K 5% 1/4W
R1512	1-249-439-11	CARBON	68K 5% 1/4W	R1584	1-249-429-11	CARBON	10K 5% 1/4W
R1513	1-249-417-11	CARBON	1K 5% 1/4W	R1585	1-249-429-11	CARBON	10K 5% 1/4W
R1514	1-249-440-11	CARBON	82K 5% 1/4W	R1586	1-249-433-11	CARBON	22K 5% 1/4W
R1515	1-249-424-11	CARBON	3.9K 5% 1/4W	R1587	1-249-429-11	CARBON	10K 5% 1/4W
R1516	1-249-440-11	CARBON	82K 5% 1/4W	R1588	1-249-427-11	CARBON	6.8K 5% 1/4W
R1517	1-249-429-11	CARBON	10K 5% 1/4W	R1589	1-249-438-11	CARBON	56K 5% 1/4W
R1518	1-247-887-00	CARBON	220K 5% 1/4W	R1590	1-249-429-11	CARBON	10K 5% 1/4W
R1519	1-249-433-11	CARBON	22K 5% 1/4W	R1591	1-249-424-11	CARBON	3.9K 5% 1/4W
R1520	1-249-433-11	CARBON	22K 5% 1/4W	R1592	1-249-429-11	CARBON	10K 5% 1/4W
R1521	1-249-429-11	CARBON	10K 5% 1/4W	R1593	1-249-417-11	CARBON	1K 5% 1/4W
R1522	1-214-757-00	METAL	15K 1% 1/4W	R1594	1-249-438-11	CARBON	56K 5% 1/4W
$\Delta$ R1523A		METAL		R1595	1-249-417-11	CARBON	1K 5% 1/4W
R1524	1-249-411-11	CARBON	330 5% 1/4W	R1596	1-247-895-00	CARBON	470K 5% 1/4W
R1525	1-215-444-00	METAL	9.1K 1% 1/4W	R1597	1-249-429-11	CARBON	10K 5% 1/4W
R1526	1-215-472-00	METAL	130K 1% 1/4W	R1598	1-249-433-11	CARBON	22K 5% 1/4W
R1527	1-214-780-00	METAL	130K 1% 1/4W	R1599	1-249-424-11	CARBON	3.9K 5% 1/4W
R1528	1-249-435-11	CARBON	33K 5% 1/4W	R2501	1-249-422-11	CARBON	2.7K 5% 1/4W
R1529	1-249-410-11	CARBON	270 5% 1/4W	R2502	1-249-429-11	CARBON	10K 5% 1/4W
R1530	1-247-895-00	CARBON	470K 5% 1/4W	R2503	1-215-429-00	METAL	2.2K 1% 1/4W
R1531	1-249-429-11	CARBON	10K 5% 1/4W	R2504	1-249-431-11	CARBON	15K 5% 1/4W
R1532	1-249-425-11	CARBON	4.7K 5% 1/4W	R2505	1-249-426-11	CARBON	5.6K 5% 1/4W
R1533	1-247-881-00	CARBON	120K 5% 1/4W	R2506	1-249-427-11	CARBON	6.8K 5% 1/4W
R1534	1-249-429-11	CARBON	10K 5% 1/4W	R2507	1-249-429-11	CARBON	10K 5% 1/4W
R1535	1-249-431-11	CARBON	15K 5% 1/4W	R2508	1-249-429-11	CARBON	10K 5% 1/4W
R1536	1-249-433-11	CARBON	22K 5% 1/4W	R2509	1-249-433-11	CARBON	22K 5% 1/4W
R1537	1-249-426-11	CARBON	5.6K 5% 1/4W	R2510	1-249-431-11	CARBON	15K 5% 1/4W
R1538	1-249-432-11	CARBON	18K 5% 1/4W	R2511	1-249-427-11	CARBON	6.8K 5% 1/4W
R1539	1-215-440-00	METAL	6.2K 1% 1/4W	R2512	1-249-430-11	CARBON	12K 5% 1/4W
R1540	1-249-405-11	CARBON	100 5% 1/4W	R2513	1-249-429-11	CARBON	10K 5% 1/4W
R1541	1-249-423-11	CARBON	3.3K 5% 1/4W	R2514	1-249-405-11	CARBON	100 5% 1/4W
R1542	1-249-421-11	CARBON	2.2K 5% 1/4W	R2515	1-249-424-11	CARBON	3.9K 5% 1/4W
R1543	1-249-435-11	CARBON	33K 5% 1/4W	R2516	1-249-429-11	CARBON	10K 5% 1/4W
R1544	1-249-435-11	CARBON	33K 5% 1/4W	R2517	1-249-432-11	CARBON	18K 5% 1/4W
R1545	1-249-439-11	CARBON	68K 5% 1/4W	R2518	1-249-425-11	CARBON	4.7K 5% 1/4W
R1546	1-249-435-11	CARBON	33K 5% 1/4W	R2519	1-249-429-11	CARBON	10K 5% 1/4W
R1547	1-249-441-11	CARBON	100K 5% 1/4W	R2520	1-249-422-11	CARBON	2.7K 5% 1/4W
R1548	1-249-438-11	CARBON	56K 5% 1/4W	R2521	1-215-436-00	METAL	4.3K 1% 1/4W
R1549	1-249-409-11	CARBON	220 5% 1/4W	R2522	1-215-436-00	METAL	4.3K 1% 1/4W
R1550	1-249-425-11	CARBON	4.7K 5% 1/4W	R2523	1-215-431-00	METAL	2.7K 1% 1/4W
R1551	1-249-429-11	CARBON	10K 5% 1/4W	R2524	1-215-435-00	METAL	3.9K 1% 1/4W
R1552	1-249-413-11	CARBON	470 5% 1/4W	R2525	1-215-435-00	METAL	3.9K 1% 1/4W
R1553	1-249-417-11	CARBON	1K 5% 1/4W	R2526	1-247-887-00	CARBON	220K 5% 1/4W
R1554	1-249-437-11	CARBON	47K 5% 1/4W	R2527	1-215-429-00	METAL	2.2K 1% 1/4W
R1555	1-249-409-11	CARBON	220 5% 1/4W	R2528	1-249-423-11	CARBON	3.3K 5% 1/4W
R1556	1-249-441-11	CARBON	100K 5% 1/4W	R2529	1-249-429-11	CARBON	10K 5% 1/4W
R1557	1-249-409-11	CARBON	220 5% 1/4W	R2530	1-215-429-00	METAL	2.2K 1% 1/4W
R1558	1-249-425-11	CARBON	4.7K 5% 1/4W	R2531	1-249-417-11	CARBON	1K 5% 1/4W
R1559	1-249-428-11	CARBON	8.2K 5% 1/4W	R2532	1-249-423-11	CARBON	3.3K 5% 1/4W
R1560	1-249-434-11	CARBON	27K 5% 1/4W	R2533	1-249-423-11	CARBON	3.3K 5% 1/4W
R1561	1-249-429-11	CARBON	10K 5% 1/4W				



A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>				<RESISTOR>			
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q2547	8-729-900-63	TRANSISTOR DTA124ES	
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q2548	8-729-900-63	TRANSISTOR DTA124ES	
Q507	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q2551	8-729-900-63	TRANSISTOR DTA124ES	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q2552	8-729-900-63	TRANSISTOR DTA124ES	
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE		Q2553	8-729-900-63	TRANSISTOR DTA124ES	
Q512	8-729-119-76	TRANSISTOR 2SA1175-HFE		<RESISTOR>			
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE		R505	1-249-405-11	CARBON 100 5% 1/4W	
Q516	8-729-140-96	TRANSISTOR 2SD774-34		R506	1-249-429-11	CARBON 10K 5% 1/4W	
Q517	8-729-303-47	TRANSISTOR 2SK552		R507	1-249-433-11	CARBON 22K 5% 1/4W	
Q521	8-729-119-78	TRANSISTOR 2SC2785-HFE		R508	1-249-433-11	CARBON 22K 5% 1/4W	
Q522	8-729-119-78	TRANSISTOR 2SC2785-HFE		R509	1-249-409-11	CARBON 220 5% 1/4W	
Q523	8-729-119-76	TRANSISTOR 2SA1175-HFE		R514	1-249-405-11	CARBON 100 5% 1/4W	
Q524	8-729-900-63	TRANSISTOR DTA124ES		R516	1-249-405-11	CARBON 100 5% 1/4W	
Q525	8-729-900-63	TRANSISTOR DTA124ES		R518	1-215-459-00	METAL 39K 1% 1/4W	
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE		R520	1-215-445-00	METAL 10K 1% 1/4W	
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE		R522	1-249-430-11	CARBON 12K 5% 1/4W	
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE		R523	1-249-417-11	CARBON 1K 5% 1/4W	
Q1506	8-729-119-76	TRANSISTOR 2SA1175-HFE		R524	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE		R525	1-249-418-11	CARBON 1.2K 5% 1/4W	
Q1508	8-729-119-76	TRANSISTOR 2SA1175-HFE		R527	1-249-415-11	CARBON 680 5% 1/4W	
Q1509	8-729-119-76	TRANSISTOR 2SA1175-HFE		R528	1-247-876-11	CARBON 75K 5% 1/4W	
Q1510	8-729-119-78	TRANSISTOR 2SC2785-HFE		R529	1-249-429-11	CARBON 10K 5% 1/4W	
Q1511	8-729-119-78	TRANSISTOR 2SC2785-HFE		R530	1-249-417-11	CARBON 1K 5% 1/4W	
Q1512	8-729-119-78	TRANSISTOR 2SC2785-HFE		R531	1-249-435-11	CARBON 33K 5% 1/4W	
Q1513	8-729-119-78	TRANSISTOR 2SC2785-HFE		R532	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q1514	8-729-119-76	TRANSISTOR 2SA1175-HFE		R533	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q1517	8-729-119-78	TRANSISTOR 2SC2785-HFE		R534	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q2501	8-729-119-76	TRANSISTOR 2SA1175-HFE		R535	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q2502	8-729-119-78	TRANSISTOR 2SC2785-HFE		R536	1-249-429-11	CARBON 10K 5% 1/4W	
Q2503	8-729-119-78	TRANSISTOR 2SC2785-HFE		R537	1-249-417-11	CARBON 1K 5% 1/4W	
Q2504	8-729-119-76	TRANSISTOR 2SA1175-HFE		R538	1-249-414-11	CARBON 560 5% 1/4W	
Q2505	8-729-119-76	TRANSISTOR 2SA1175-HFE		R539	1-249-429-11	CARBON 10K 5% 1/4W	
Q2506	8-729-119-78	TRANSISTOR 2SC2785-HFE		R540	1-249-429-11	CARBON 10K 5% 1/4W	
Q2507	8-729-119-76	TRANSISTOR 2SA1175-HFE		R541	1-249-433-11	CARBON 22K 5% 1/4W	
Q2508	8-729-119-78	TRANSISTOR 2SC2785-HFE		R542	1-249-438-11	CARBON 56K 5% 1/4W	
Q2509	8-729-119-76	TRANSISTOR 2SA1175-HFE		R543	1-249-419-11	CARBON 1.5K 5% 1/4W	
Q2512	8-729-119-78	TRANSISTOR 2SC2785-HFE		R545	1-249-429-11	CARBON 10K 5% 1/4W	
Q2513	8-729-119-78	TRANSISTOR 2SC2785-HFE		R546	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q2514	8-729-119-78	TRANSISTOR 2SC2785-HFE		R547	1-249-429-11	CARBON 10K 5% 1/4W	
Q2515	8-729-119-78	TRANSISTOR 2SC2785-HFE		R548	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q2517	8-729-119-76	TRANSISTOR 2SA1175-HFE		R549	1-249-429-11	CARBON 10K 5% 1/4W	
Q2518	8-729-119-78	TRANSISTOR 2SC2785-HFE		R550	1-215-433-00	METAL 3.3K 1% 1/4W	
Q2520	8-729-119-78	TRANSISTOR 2SC2785-HFE		R551	1-215-437-00	METAL 4.7K 1% 1/4W	
Q2521	8-729-119-78	TRANSISTOR 2SC2785-HFE		R552	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q2524	8-729-119-76	TRANSISTOR 2SA1175-HFE		R554	1-249-424-11	CARBON 3.9K 5% 1/4W	
Q2525	8-729-119-78	TRANSISTOR 2SC2785-HFE		R555	1-216-452-11	METAL OXIDE 180 5% 2W F	
Q2527	8-729-119-78	TRANSISTOR 2SC2785-HFE		R558	1-247-878-00	CARBON 91K 5% 1/4W	
Q2528	8-729-119-78	TRANSISTOR 2SC2785-HFE		R559	1-215-888-00	METAL OXIDE 220 5% 2W F	
Q2529	8-729-119-78	TRANSISTOR 2SC2785-HFE		R562	1-249-405-11	CARBON 100 5% 1/4W	
Q2531	8-729-119-78	TRANSISTOR 2SC2785-HFE		R563	1-247-764-11	CARBON 10K 5% 1/2W	
Q2532	8-729-119-78	TRANSISTOR 2SC2785-HFE		R571	1-215-857-11	METAL OXIDE 10 5% 1W F	
Q2535	8-729-119-78	TRANSISTOR 2SC2785-HFE		R572	1-216-430-11	METAL OXIDE 390 5% 1W F	
Q2536	8-729-119-80	TRANSISTOR 2SC2688-LK		R573	1-216-350-11	METAL OXIDE 1.2 5% 1W F	
Q2537	8-729-119-78	TRANSISTOR 2SC2785-HFE		R578	1-249-429-11	CARBON 10K 5% 1/4W	
Q2538	8-729-119-78	TRANSISTOR 2SC2785-HFE		R579	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q2539	8-729-620-02	TRANSISTOR 2SA1115-EF		R580	1-215-439-00	METAL 5.6K 1% 1/4W	
Q2540	8-729-119-78	TRANSISTOR 2SC2785-HFE		R581	1-249-437-11	CARBON 47K 5% 1/4W	
Q2541	8-729-620-02	TRANSISTOR 2SA1115-EF		R582	1-247-753-11	CARBON 1.2K 5% 1/2W	
Q2542	8-729-119-78	TRANSISTOR 2SC2785-HFE		R583	1-249-417-11	CARBON 1K 5% 1/4W	
Q2543	8-729-620-02	TRANSISTOR 2SA1115-EF		R584	1-249-405-11	CARBON 100 5% 1/4W	
Q2545	8-729-119-78	TRANSISTOR 2SC2785-HFE		R585	1-249-429-11	CARBON 10K 5% 1/4W	
Q2546	8-729-119-78	TRANSISTOR 2SC2785-HFE					

—101—

Q3

A

REF.NO.	PART NO.	DESCRIPTION				REMARK	REF.NO.	PART NO.	DESCRIPTION				REMARK
R2253	1-249-417-11	CARBON	1K	5%	1/4W		C1511	1-126-101-11	ELECT	100MF	20%	16V	
R2254	1-249-435-11	CARBON	33K	5%	1/4W		C1512	1-124-907-11	ELECT	10MF	20%	50V	
R2255	1-249-429-11	CARBON	10K	5%	1/4W		C1513	1-124-034-51	ELECT	33MF	20%	16V	
R2256	1-249-417-11	CARBON	1K	5%	1/4W		C1514	1-124-768-11	ELECT	4.7MF	20%	50V	
R2260	1-249-405-11	CARBON	100	5%	1/4W		C1515	1-102-820-00	CERAMIC	330PF	5%	50V	
R2261	1-249-417-11	CARBON	1K	5%	1/4W		C1516	1-126-103-11	ELECT	470MF	20%	16V	
R2262	1-249-417-11	CARBON	1K	5%	1/4W		C1517	1-124-927-11	ELECT	4.7MF	20%	50V	
R2271	1-249-437-11	CARBON	47K	5%	1/4W		C1518	1-124-903-11	ELECT	1MF	20%	50V	
<VARIABLE RESISTOR>							C1519	1-126-103-11	ELECT	470MF	20%	16V	
RV1202	1-228-994-00	RES, ADJ, CARBON	10K				C1520	1-106-365-00	MYLAR	0.0082MF	10%	100V	
RV1203	1-228-994-00	RES, ADJ, CARBON	10K				C1521	1-106-365-00	MYLAR	0.0082MF	10%	100V	
RV1204	1-230-496-11	RES, ADJ, CARBON	10K				C1523	1-124-902-00	ELECT	0.47MF	20%	50V	
RV1206	1-230-496-11	RES, ADJ, CARBON	10K				C1524	1-136-169-00	FILM	0.22MF	5%	50V	
RV1207	1-228-994-00	RES, ADJ, CARBON	10K				C1525	1-136-157-00	FILM	0.022MF	5%	50V	
RV2201	1-228-994-00	RES, ADJ, CARBON	10K				C1526	1-136-155-00	FILM	0.015MF	5%	50V	
RV2202	1-228-994-00	RES, ADJ, CARBON	10K				C1528	1-124-902-00	ELECT	0.47MF	20%	50V	
*****							C1529	1-124-477-11	ELECT	47MF	20%	25V	
*A-1296-552-A	A BOARD, COMPLETE						C1530	1-124-910-11	ELECT	47MF	20%	50V	
	*****						C1531	1-123-382-00	ELECT	3.3MF	20%	50V	
*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P						C1532	1-124-477-11	ELECT	47MF	20%	16V	
*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P						C1533	1-124-477-11	ELECT	47MF	20%	16V	
*1-564-506-11	PLUG, CONNECTOR 3P						C1534	1-126-233-11	ELECT	22MF	20%	16V	
*1-564-507-11	PLUG, CONNECTOR 4P						C1535	1-124-907-11	ELECT	10MF	20%	50V	
*1-564-508-11	PLUG, CONNECTOR 5P						C1536	1-124-477-11	ELECT	47MF	20%	16V	
*1-564-509-11	PLUG, CONNECTOR 6P						C1537	1-124-907-11	ELECT	10MF	20%	50V	
*1-564-512-11	PLUG, CONNECTOR 9P						C1538	1-124-477-11	ELECT	47MF	20%	16V	
*1-564-516-11	PLUG, CONNECTOR 13P						C1539	1-124-907-11	ELECT	10MF	20%	50V	
*3-738-015-01	COVER, (DIA. 6) CARBON VR						C1540	1-124-477-11	ELECT	47MF	20%	16V	
4-382-854-01	SCREW (M3X8), P. SW (+)						C1542	1-124-477-11	ELECT	47MF	20%	16V	
	<CAPACITOR>						C1543	1-124-907-11	ELECT	10MF	20%	50V	
C501	1-124-480-11	ELECT	470MF	20%	25V		C1544	1-124-907-11	ELECT	10MF	20%	50V	
C502	1-126-101-11	ELECT	100MF	20%	16V		C2501	1-126-101-11	ELECT	100MF	20%	16V	
C504	1-124-902-00	ELECT	0.47MF	20%	50V		C2502	1-124-903-11	ELECT	1MF	20%	50V	
C505	1-124-902-00	ELECT	0.47MF	20%	50V		C2503	1-102-959-00	CERAMIC	22PF	5%	50V	
C506	1-124-902-00	ELECT	0.47MF	20%	50V		C2504	1-136-165-00	FILM	0.1MF	5%	50V	
C507	1-106-367-00	MYLAR	0.01MF	10%	100V		C2505	1-101-888-00	CERAMIC	68PF	5%	50V	
C509	1-124-477-11	ELECT	47MF	20%	16V		C2506	1-124-477-11	ELECT	47MF	20%	16V	
C510	1-102-244-00	CERAMIC	220PF	10%	500V		C2507	1-124-477-11	ELECT	47MF	20%	16V	
C511	1-124-927-11	ELECT	4.7MF	20%	50V		C2508	1-124-477-11	ELECT	47MF	20%	16V	
C512	1-124-925-11	ELECT	2.2MF	20%	50V		C2509	1-124-907-11	ELECT	10MF	20%	50V	
C513	1-106-363-00	MYLAR	0.0068MF	10%	100V		C2510	1-129-751-00	FILM	0.1MF	10%	200V	
C514	1-124-513-11	ELECT	47MF	20%	50V		C2511	1-106-391-12	MYLAR	0.1MF	10%	200V	
C517	1-124-912-11	ELECT	330MF	20%	50V		C2512	1-124-034-51	ELECT	33MF	20%	16V	
C518	1-123-604-00	ELECT	220MF	20%	50V		C2513	1-124-034-51	ELECT	33MF	20%	16V	
C519	1-124-902-00	ELECT	0.47MF	20%	50V		C2514	1-124-034-51	ELECT	33MF	20%	16V	
C520	1-129-723-00	FILM	0.068MF	10%	400V		C2515	1-124-034-51	ELECT	33MF	20%	16V	
C521	1-102-074-00	CERAMIC	0.001MF	10%	50V		C2516	1-124-034-51	ELECT	33MF	20%	16V	
C523	1-106-367-00	MYLAR	0.01MF	10%	100V		C2517	1-124-034-51	ELECT	33MF	20%	16V	
C524	1-106-367-00	MYLAR	0.01MF	10%	100V		C2520	1-124-915-11	ELECT	10MF	20%	16V	
C525	1-106-375-12	MYLAR	0.022MF	10%	100V		C2521	1-124-915-11	ELECT	10MF	20%	16V	
C527	1-124-618-11	ELECT	2200MF	20%	35V		C2522	1-124-907-11	ELECT	10MF	20%	50V	
C530	1-136-173-00	FILM	0.47MF	5%	50V		C2523	1-124-907-11	ELECT	10MF	20%	50V	
C1501	1-126-103-11	ELECT	470MF	20%	16V		C2524	1-124-907-11	ELECT	10MF	20%	50V	
C1503	1-136-173-00	FILM	0.47MF	5%	50V		C2525	1-102-527-11	CERAMIC	82PF	5%	50V	
C1504	1-126-101-11	ELECT	100MF	20%	16V		C2529	1-126-101-11	ELECT	100MF	20%	16V	
C1506	1-136-157-00	FILM	0.022MF	5%	50V		C2530	1-106-351-00	MYLAR	0.0022MF	10%	100V	
C1507	1-130-729-00	FILM	0.0027MF	5%	50V		C2531	1-124-477-11	ELECT	47MF	20%	16V	
C1509	1-123-382-00	ELECT	3.3MF	20%	50V		C2532	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1510	1-124-034-51	ELECT	33MF	20%	16V		C2533	1-136-165-00	FILM	0.1MF	5%	50V	
							C2534	1-136-165-00	FILM	0.1MF	5%	50V	
							C2535	1-124-902-00	ELECT	0.47MF	20%	50V	
							C2536	1-106-383-00	MYLAR	0.047MF	10%	100V	

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1214	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1249	1-247-903-00	CARBON	1M 5% 1/4W
Q1215	8-729-124-08	TRANSISTOR 2SC2408		R1250	1-249-421-11	CARBON	2.2K 5% 1/4W
Q1216	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1251	1-249-405-11	CARBON	100 5% 1/4W
Q1217	8-729-124-08	TRANSISTOR 2SC2408		R1252	1-247-700-11	CARBON	100 5% 1/4W
Q1218	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1253	1-249-412-11	CARBON	390 5% 1/4W
Q1219	8-729-124-08	TRANSISTOR 2SC2408		R1254	1-215-397-00	METAL	100 1% 1/4W
Q1220	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1255	1-215-421-00	METAL	1K 1% 1/4W
Q1221	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1256	1-215-375-00	METAL	12 1% 1/4W
Q1231	8-729-140-96	TRANSISTOR 2SD774-34		R1257	1-249-405-11	CARBON	100 5% 1/4W
Q1291	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1258	1-247-700-11	CARBON	100 5% 1/4W
Q1292	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1259	1-249-412-11	CARBON	390 5% 1/4W
Q2204	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1260	1-215-397-00	METAL	100 1% 1/4W
Q2205	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1261	1-215-421-00	METAL	1K 1% 1/4W
Q2206	8-729-119-76	TRANSISTOR 2SA1175-HFE		R1262	1-215-375-00	METAL	12 1% 1/4W
Q2207	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1263	1-247-700-11	CARBON	100 5% 1/4W
Q2209	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1264	1-247-700-11	CARBON	100 5% 1/4W
Q2210	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1265	1-249-412-11	CARBON	390 5% 1/4W
<RESISTOR>				R1266	1-215-397-00	METAL	100 1% 1/4W
R1201	1-249-409-11	CARBON	220 5% 1/4W	R1267	1-215-421-00	METAL	1K 1% 1/4W
R1202	1-249-409-11	CARBON	220 5% 1/4W	R1268	1-215-377-00	METAL	15 1% 1/4W
R1203	1-249-409-11	CARBON	220 5% 1/4W	R1269	1-215-447-00	METAL	12K 1% 1/4W
R1204	1-249-409-11	CARBON	220 5% 1/4W	R1270	1-214-753-00	METAL	10K 1% 1/4W
R1205	1-249-429-11	CARBON	10K 5% 1/4W	R1271	1-249-427-11	CARBON	6.8K 5% 1/4W
R1206	1-247-704-11	CARBON	220 5% 1/4W	R1272	1-247-714-11	CARBON	1.2K 5% 1/4W
R1211	1-249-409-11	CARBON	220 5% 1/4W	R1273	1-249-427-11	CARBON	6.8K 5% 1/4W
R1212	1-249-439-11	CARBON	68K 5% 1/4W	R1274	1-247-714-11	CARBON	1.2K 5% 1/4W
R1213	1-247-895-00	CARBON	470K 5% 1/4W	R1275	1-249-427-11	CARBON	6.8K 5% 1/4W
R1214	1-249-440-11	CARBON	82K 5% 1/4W	R1276	1-249-418-11	CARBON	1.2K 5% 1/4W
R1215	1-247-725-11	CARBON	10K 5% 1/4W	R1279	1-249-427-11	CARBON	6.8K 5% 1/4W
R1216	1-247-881-00	CARBON	120K 5% 1/4W	R1280	1-249-418-11	CARBON	1.2K 5% 1/4W
R1217	1-249-409-11	CARBON	220 5% 1/4W	R1281	1-249-405-11	CARBON	100 5% 1/4W
R1218	1-249-409-11	CARBON	220 5% 1/4W	R1282	1-249-469-11	CARBON	100K 5% 1/4W
R1219	1-249-427-11	CARBON	6.8K 5% 1/4W	R1283	1-247-713-11	CARBON	1K 5% 1/4W
R1220	1-249-438-11	CARBON	56K 5% 1/4W	R1287	1-249-418-11	CARBON	1.2K 5% 1/4W
R1221	1-247-903-00	CARBON	1M 5% 1/4W	R1288	1-249-427-11	CARBON	6.8K 5% 1/4W
R1222	1-249-409-11	CARBON	220 5% 1/4W	R1291	1-249-409-11	CARBON	220 5% 1/4W
R1223	1-249-417-11	CARBON	1K 5% 1/4W	R1293	1-249-437-11	CARBON	47K 5% 1/4W
R1224	1-249-417-11	CARBON	1K 5% 1/4W	R1294	1-249-433-11	CARBON	22K 5% 1/4W
R1225	1-249-433-11	CARBON	22K 5% 1/4W	R1296	1-249-417-11	CARBON	1K 5% 1/4W
R1226	1-249-435-11	CARBON	33K 5% 1/4W	R1297	1-249-437-11	CARBON	47K 5% 1/4W
R1227	1-249-438-11	CARBON	56K 5% 1/4W	R1299	1-247-725-11	CARBON	10K 5% 1/4W
R1228	1-249-429-11	CARBON	10K 5% 1/4W	R2223	1-249-425-11	CARBON	4.7K 5% 1/4W
R1229	1-249-421-11	CARBON	2.2K 5% 1/4W	R2224	1-249-405-11	CARBON	100 5% 1/4W
R1230	1-249-421-11	CARBON	2.2K 5% 1/4W	R2230	1-249-429-11	CARBON	10K 5% 1/4W
R1231	1-249-405-11	CARBON	100 5% 1/4W	R2231	1-247-725-11	CARBON	10K 5% 1/4W
R1232	1-249-416-11	CARBON	820 5% 1/4W	R2232	1-249-429-11	CARBON	10K 5% 1/4W
R1233	1-247-725-11	CARBON	10K 5% 1/4W	R2233	1-249-425-11	CARBON	4.7K 5% 1/4W
R1234	1-249-429-11	CARBON	10K 5% 1/4W	R2234	1-215-454-00	METAL	24K 1% 1/4W
R1235	1-249-432-11	CARBON	18K 5% 1/4W	R2235	1-249-430-11	CARBON	12K 5% 1/4W
R1236	1-249-433-11	CARBON	22K 5% 1/4W	R2236	1-249-429-11	CARBON	10K 5% 1/4W
R1237	1-215-463-00	METAL	56K 1% 1/4W	R2237	1-215-448-00	METAL	13K 1% 1/4W
R1238	1-215-429-00	METAL	2.2K 1% 1/4W	R2238	1-249-429-11	CARBON	10K 5% 1/4W
R1239	1-249-465-11	CARBON	47K 5% 1/4W	R2239	1-247-725-11	CARBON	10K 5% 1/4W
R1240	1-249-429-11	CARBON	10K 5% 1/4W	R2240	1-247-721-11	CARBON	4.7K 5% 1/4W
R1241	1-249-413-11	CARBON	470 5% 1/4W	R2241	1-249-422-11	CARBON	2.7K 5% 1/4W
R1242	1-247-840-00	CARBON	2.4K 5% 1/4W	R2242	1-249-430-11	CARBON	12K 5% 1/4W
R1243	1-249-419-11	CARBON	1.5K 5% 1/4W	R2243	1-249-429-11	CARBON	10K 5% 1/4W
R1244	1-247-717-11	CARBON	2.2K 5% 1/4W	R2244	1-249-429-11	CARBON	10K 5% 1/4W
R1245	1-247-903-00	CARBON	1M 5% 1/4W	R2245	1-249-429-11	CARBON	10K 5% 1/4W
R1246	1-249-421-11	CARBON	2.2K 5% 1/4W	R2246	1-249-434-11	CARBON	27K 5% 1/4W
R1247	1-247-903-00	CARBON	1M 5% 1/4W	R2247	1-249-429-11	CARBON	10K 5% 1/4W
R1248	1-249-421-11	CARBON	2.2K 5% 1/4W	R2248	1-247-840-00	CARBON	2.4K 5% 1/4W
				R2252	1-249-423-11	CARBON	3.3K 5% 1/4W

Q3

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*****				C2293	1-101-004-00	CERAMIC 0.01MF	50V
*1-564-524-11	PLUG, CONNECTOR 9P			C2294	1-126-301-11	ELECT 1MF	20% 50V
*1-565-494-11	CONNECTOR, BOARD TO BOARD 18P			C2295	1-124-589-11	ELECT 47MF	20% 16V
<CAPACITOR>				C2300	1-102-518-11	CERAMIC 33P	5% 50V
C1201	1-101-004-00	CERAMIC 0.01MF	50V	C2301	1-102-518-11	CERAMIC 33P	5% 50V
C1202	1-130-475-00	MYLAR 0.0022MF	5% 50V	C2302	1-102-518-11	CERAMIC 33P	5% 50V
C1203	1-126-157-11	ELECT 10MF	20% 16V	<COMPOSITION CIRCUIT BLOCK>			
C1204	1-101-004-00	CERAMIC 0.01MF	50V	CP1202	1-232-096-00	COMPOSITION CIRCUIT BLOCK	
C1205	1-126-162-11	ELECT 3.3MF	20% 50V	CP1205	1-232-096-00	COMPOSITION CIRCUIT BLOCK	
C1207	1-126-157-11	ELECT 10MF	20% 16V	CP1207	1-232-096-00	COMPOSITION CIRCUIT BLOCK	
C1208	1-126-157-11	ELECT 10MF	20% 16V	<DIODE>			
C1209	1-124-589-11	ELECT 47MF	20% 16V	D1202	8-719-911-19	DIODE 1SS119	
C1210	1-124-234-00	ELECT 22MF	20% 16V	D1203	8-719-110-17	DIODE RD10ESB2	
C1211	1-124-034-51	ELECT 33MF	20% 16V	D1204	8-719-110-17	DIODE RD10ESB2	
C1212	1-130-475-00	MYLAR 0.0022MF	5% 50V	D1205	8-719-110-17	DIODE RD10ESB2	
C1213	1-136-173-00	FILM 0.47MF	5% 50V	D1209	8-719-110-17	DIODE RD10ESB2	
C1214	1-136-173-00	FILM 0.47MF	5% 50V	D1210	8-719-911-19	DIODE 1SS119	
C1215	1-136-173-00	FILM 0.47MF	5% 50V	D1211	8-719-911-19	DIODE 1SS119	
C1216	1-102-114-00	CERAMIC 470PF	10% 50V	D1212	8-719-911-19	DIODE 1SS119	
C1217	1-124-034-51	ELECT 33MF	20% 16V	D1220	8-719-911-19	DIODE 1SS119	
C1218	1-101-004-00	CERAMIC 0.01MF	50V	D1221	8-719-911-19	DIODE 1SS119	
C1219	1-101-004-00	CERAMIC 0.01MF	50V	D1271	8-719-911-19	DIODE 1SS119	
C1220	1-126-157-11	ELECT 10MF	20% 16V	D1272	8-719-911-19	DIODE 1SS119	
C1221	1-124-589-11	ELECT 47MF	20% 16V	D1273	8-719-911-19	DIODE 1SS119	
C1222	1-130-495-00	MYLAR 0.1MF	5% 50V	D1274	8-719-911-19	DIODE 1SS119	
C1223	1-130-483-00	MYLAR 0.01MF	5% 50V	D1275	8-719-911-19	DIODE 1SS119	
C1224	1-130-495-00	MYLAR 0.1MF	5% 50V	D1276	8-719-911-19	DIODE 1SS119	
C1225	1-130-483-00	MYLAR 0.01MF	5% 50V	D1277	8-719-911-19	DIODE 1SS119	
C1226	1-130-495-00	MYLAR 0.1MF	5% 50V	D1291	8-719-109-93	DIODE RD6.2ESB2	
C1227	1-130-483-00	MYLAR 0.01MF	5% 50V	D1292	8-719-911-19	DIODE 1SS119	
C1228	1-130-479-00	MYLAR 0.0047MF	5% 50V	D1293	8-719-109-71	DIODE RD3.9ESB1	
C1229	1-130-479-00	MYLAR 0.0047MF	5% 50V	D1294	8-719-911-19	DIODE 1SS119	
C1230	1-130-479-00	MYLAR 0.0047MF	5% 50V	D1295	8-719-911-19	DIODE 1SS119	
C1231	1-101-880-00	CERAMIC 47PF	5% 50V	D1296	8-719-911-19	DIODE 1SS119	
C1232	1-101-880-00	CERAMIC 47PF	5% 50V	D1297	8-719-911-19	DIODE 1SS119	
C1233	1-101-880-00	CERAMIC 47PF	5% 50V	D1299	8-719-911-19	DIODE 1SS119	
C1236	1-102-117-00	CERAMIC 820PF	10% 50V	<IC>			
C1237	1-102-117-00	CERAMIC 820PF	10% 50V	IC1201	8-752-030-31	IC CXA1024S	
C1238	1-102-116-00	CERAMIC 680PF	10% 50V	IC1202	8-752-006-12	IC CX20061	
C1242	1-124-589-11	ELECT 47MF	20% 16V	IC1203	8-759-000-49	IC MC14066BCP	
C1291	1-124-465-00	ELECT 0.47MF	20% 50V	IC2002	8-759-045-38	IC MC14538BCP	
C1292	1-124-465-00	ELECT 0.47MF	20% 50V	IC2204	8-759-045-38	IC MC14538BCP	
C1293	1-124-465-00	ELECT 0.47MF	20% 50V	IC2205	8-759-945-58	IC RC4558P	
C1294	1-102-113-00	CERAMIC 390PF	10% 50V	<COIL>			
C2208	1-136-157-00	FILM 0.022MF	5% 50V	L455	1-410-068-11	INDUCTOR 5.6MMH	
C2209	1-101-004-00	CERAMIC 0.01MF	50V	<TRANSISTOR>			
C2210	1-126-101-11	ELECT 100MF	20% 16V	Q1201	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2211	1-102-816-00	CERAMIC 120PF	5% 50V	Q1202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C2212	1-126-163-11	ELECT 4.7MF	20% 50V	Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C2213	1-124-499-11	ELECT 1MF	20% 50V	Q1206	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C2214	1-102-816-00	CERAMIC 120PF	5% 50V	Q1207	8-729-140-96	TRANSISTOR 2SD774-34	
C2215	1-126-301-11	ELECT 1MF	20% 50V	Q1208	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2216	1-124-499-11	ELECT 1MF	20% 50V	Q1209	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2217	1-124-257-00	ELECT 2.2MF	20% 50V	Q1210	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2218	1-102-816-00	CERAMIC 120PF	5% 50V	Q1211	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2223	1-101-004-00	CERAMIC 0.01MF	50V	Q1212	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2224	1-102-822-00	CERAMIC 390PF	5% 50V	Q1213	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C2225	1-136-173-00	FILM 0.47MF	5% 50V				
C2226	1-101-004-00	CERAMIC 0.01MF	50V				
C2290	1-101-004-00	CERAMIC 0.01MF	50V				
C2291	1-101-004-00	CERAMIC 0.01MF	50V				

Q2

Q1

Q3

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1112	1-249-441-11	CARBON 100K 5% 1/4W	
R1113	1-249-441-11	CARBON 100K 5% 1/4W	
R1114	1-249-417-11	CARBON 1K 5% 1/4W	
R1116	1-249-437-11	CARBON 47K 5% 1/4W	
R1117	1-249-417-11	CARBON 1K 5% 1/4W	
R1118	1-249-405-11	CARBON 100 5% 1/4W	
R1119	1-249-417-11	CARBON 1K 5% 1/4W	
R1121	1-249-470-11	CARBON 0.47 5% 1/2W	F
R1123	1-249-437-11	CARBON 47K 5% 1/4W	
R1126	1-249-465-11	CARBON 47K 5% 1/4W	
R1127	1-249-437-11	CARBON 47K 5% 1/4W	
R1128	1-249-437-11	CARBON 47K 5% 1/4W	
R1130	1-249-437-11	CARBON 47K 5% 1/4W	
R1131	1-247-725-11	CARBON 10K 5% 1/4W	
R1132	1-249-417-11	CARBON 1K 5% 1/4W	
R1133	1-249-437-11	CARBON 47K 5% 1/4W	
R1134	1-249-441-11	CARBON 100K 5% 1/4W	
R1141	1-249-413-11	CARBON 470 5% 1/4W	
R1152	1-249-437-11	CARBON 47K 5% 1/4W	
R1154	1-249-437-11	CARBON 47K 5% 1/4W	

\*\*\*\*\*

\*A-1270-271-A Q1 BOARD, COMPLETE  
\*\*\*\*\*

1-537-209-11 TERMINAL BOARD  
\*1-564-517-11 PLUG, CONNECTOR 2P  
\*1-564-519-11 PLUG, CONNECTOR 4P  
\*1-564-521-11 PLUG, CONNECTOR 6P  
\*1-564-526-31 PLUG, CONNECTOR 11P

## &lt;CAPACITOR&gt;

C1001	1-124-589-11	ELECT 47MF 20% 16V	
C1002	1-124-589-11	ELECT 47MF 20% 16V	
C1003	1-124-234-00	ELECT 22MF 20% 16V	
C1004	1-101-004-00	CERAMIC 0.01MF 50V	
C1005	1-101-004-00	CERAMIC 0.01MF 50V	
C1006	1-124-589-11	ELECT 47MF 20% 16V	
C1007	1-124-589-11	ELECT 47MF 20% 16V	
C1009	1-136-165-00	FILM 0.1MF 5% 50V	
C1010	1-101-004-00	CERAMIC 0.01MF 50V	
C1011	1-101-004-00	CERAMIC 0.01MF 50V	
C1012	1-124-589-11	ELECT 47MF 20% 16V	
C1013	1-124-589-11	ELECT 47MF 20% 16V	
C1014	1-101-004-00	CERAMIC 0.01MF 50V	
C1016	1-124-589-11	ELECT 47MF 20% 16V	
C1017	1-124-589-11	ELECT 47MF 20% 16V	
C1019	1-124-589-11	ELECT 47MF 20% 16V	
C1020	1-124-589-11	ELECT 47MF 20% 16V	
C1021	1-124-589-11	ELECT 47MF 20% 16V	
C1022	1-124-589-11	ELECT 47MF 20% 16V	
C1023	1-124-589-11	ELECT 47MF 20% 16V	

## &lt;DIODE&gt;

D1001	8-719-109-66	DIODE RD3.3ESB2	
D1002	8-719-109-66	DIODE RD3.3ESB2	
D1003	8-719-109-93	DIODE RD6.2ESB2	

## &lt;TRANSISTOR&gt;

Q1003	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1004	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1005	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1006	8-729-119-78	TRANSISTOR 2SC2785-HFE	

REF. NO.	PART NO.	DESCRIPTION	REMARK
----------	----------	-------------	--------

Q1007	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1008	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1012	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1015	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1018	8-729-119-78	TRANSISTOR 2SC2785-HFE	

## &lt;RESISTOR&gt;

R1001	1-247-104-00	CARBON 75 5% 1/4W	
R1008	1-247-104-00	CARBON 75 5% 1/4W	
R1009	1-247-104-00	CARBON 75 5% 1/4W	
R1013	1-247-104-00	CARBON 75 5% 1/4W	
R1014	1-247-713-11	CARBON 1K 5% 1/4W	
R1015	1-249-434-11	CARBON 27K 5% 1/4W	
R1016	1-249-429-11	CARBON 10K 5% 1/4W	
R1017	1-249-415-11	CARBON 680 5% 1/4W	
R1018	1-249-414-11	CARBON 560 5% 1/4W	
R1019	1-249-419-11	CARBON 1.5K 5% 1/4W	
R1020	1-249-414-11	CARBON 560 5% 1/4W	
R1021	1-249-436-11	CARBON 39K 5% 1/4W	
R1022	1-247-858-11	CARBON 13K 5% 1/4W	
R1023	1-249-419-11	CARBON 1.5K 5% 1/4W	
R1024	1-249-405-11	CARBON 100 5% 1/4W	
R1025	1-249-417-11	CARBON 1K 5% 1/4W	
R1026	1-247-713-11	CARBON 1K 5% 1/4W	
R1027	1-249-434-11	CARBON 27K 5% 1/4W	
R1028	1-249-429-11	CARBON 10K 5% 1/4W	
R1029	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1030	1-249-429-11	CARBON 10K 5% 1/4W	
R1031	1-249-434-11	CARBON 27K 5% 1/4W	
R1032	1-249-429-11	CARBON 10K 5% 1/4W	
R1033	1-247-725-11	CARBON 10K 5% 1/4W	
R1034	1-249-441-11	CARBON 100K 5% 1/4W	
R1035	1-249-441-11	CARBON 100K 5% 1/4W	
R1036	1-249-417-11	CARBON 1K 5% 1/4W	
R1037	1-249-405-11	CARBON 100 5% 1/4W	
R1039	1-249-405-11	CARBON 100 5% 1/4W	
R1044	1-247-725-11	CARBON 10K 5% 1/4W	
R1045	1-249-441-11	CARBON 100K 5% 1/4W	
R1046	1-249-441-11	CARBON 100K 5% 1/4W	
R1047	1-249-417-11	CARBON 1K 5% 1/4W	
R1048	1-249-405-11	CARBON 100 5% 1/4W	
R1050	1-247-725-11	CARBON 10K 5% 1/4W	
R1051	1-249-441-11	CARBON 100K 5% 1/4W	
R1052	1-249-441-11	CARBON 100K 5% 1/4W	
R1053	1-249-417-11	CARBON 1K 5% 1/4W	
R1054	1-249-405-11	CARBON 100 5% 1/4W	
R1060	1-247-725-11	CARBON 10K 5% 1/4W	
R1061	1-249-441-11	CARBON 100K 5% 1/4W	
R1062	1-249-441-11	CARBON 100K 5% 1/4W	
R1063	1-249-417-11	CARBON 1K 5% 1/4W	
R1064	1-249-405-11	CARBON 100 5% 1/4W	
R1065	1-247-692-11	CARBON 22 5% 1/4W	
R1067	1-247-726-11	CARBON 33K 5% 1/4W	
R1070	1-249-433-11	CARBON 22K 5% 1/4W	

## &lt;SWITCH&gt;

S1001	1-570-145-11	SWITCH, SLIDE	
S1002	1-570-145-11	SWITCH, SLIDE	

\*\*\*\*\*

\*A-1275-096-A Q3 BOARD, COMPLETE

F

Q2

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D601	8-719-911-55	DIODE U05G		C1109	1-124-589-11	ELECT 47MF	20% 16V
D602	8-719-911-55	DIODE U05G		C1110	1-124-589-11	ELECT 47MF	20% 16V
D603	8-719-911-55	DIODE U05G		C1115	1-124-478-11	ELECT 100MF	20% 25V
<CONNECTOR>				C1116	1-101-004-00	CERAMIC 0.01MF	50V
F1	1-506-348-XX	PIN, CONNECTOR 3P		C1117	1-101-004-00	CERAMIC 0.01MF	50V
F2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		C1118	1-124-589-11	ELECT 47MF	20% 16V
F3	*1-564-510-11	PLUG, CONNECTOR 7P		C1119	1-101-004-00	CERAMIC 0.01MF	50V
F4	*1-506-371-00	PIN, CONNECTOR 2P		C1120	1-101-004-00	CERAMIC 0.01MF	50V
F5	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		C1121	1-126-163-11	ELECT 4.7MF	20% 50V
F6	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		C1122	1-101-004-00	CERAMIC 0.01MF	50V
F7	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		C1123	1-124-034-51	ELECT 33MF	20% 16V
F8	1-568-106-11	PIN, CONNECTOR 4P		C1124	1-124-034-51	ELECT 33MF	20% 16V
<FUSE>				C1125	1-101-004-00	CERAMIC 0.01MF	50V
F601 Δ	1-532-221-11	FUSE (5A/125V)		C1126	1-124-034-51	ELECT 33MF	20% 16V
	1-533-190-11	CLIP, FUSE; F601		C1127	1-124-589-11	ELECT 47MF	20% 16V
<RESISTOR>				C1128	1-124-589-11	ELECT 47MF	20% 16V
R601 Δ	1-202-719-91	SOLID 1M 10% 1/2W		C1129	1-101-004-00	CERAMIC 0.01MF	50V
R602 Δ	1-202-723-91	SOLID 2.2M 10% 1/2W		C1133	1-101-004-00	CERAMIC 0.01MF	50V
R603	1-214-915-00	CARBON 120K 5% 1/2W		C1134	1-101-004-00	CERAMIC 0.01MF	50V
R604	1-214-915-00	CARBON 120K 5% 1/2W		C1141	1-136-159-00	FILM 0.033MF	5% 50V
R608	1-247-702-11	CARBON 150 5% 1/4W F		C1151	1-102-121-00	CERAMIC 0.0022MF	10% 50V
<RELAY>				C1152	1-102-121-00	CERAMIC 0.0022MF	10% 50V
RL601 Δ	1-515-579-11	RELAY		C1153	1-102-121-00	CERAMIC 0.0022MF	10% 50V
<TRANSFORMER>				<DIODE>			
T601 Δ	1-421-662-11	LFT		D1101	8-719-911-19	DIODE 1SS119	
T602 Δ	1-421-662-11	LFT		<IC>			
T603 Δ	1-448-755-11	TRANSFORMER, POWER		IC1101	8-759-000-49	IC MC14066BCP	
<THERMISTOR>				IC1102	8-759-000-49	IC MC14066BCP	
Δ THP601	1-806-214-23	THERMISTOR (POSITIVE)		IC1103	8-759-000-49	IC MC14066BCP	
*****				IC1104	8-759-000-49	IC MC14066BCP	
*****				IC1105	8-759-000-49	IC MC14066BCP	
*A-1270-269-A	Q2 BOARD, COMPLETE	*****		IC1106	8-759-000-49	IC MC14066BCP	
*1-564-505-11	PLUG, CONNECTOR 2P			IC1107	8-759-929-62	IC LM7812CT	
*1-564-506-11	PLUG, CONNECTOR 3P				*4-363-146-00	HEAT SINK, V.OUT; IC1107	
*1-564-507-11	PLUG, CONNECTOR 4P			IC1110	8-759-240-81	IC TC4081BP	
*1-564-508-11	PLUG, CONNECTOR 5P			IC1112	8-759-240-81	IC TC4081BP	
*1-564-509-11	PLUG, CONNECTOR 6P			IC1113	8-759-240-81	IC TC4081BP	
*1-564-510-11	PLUG, CONNECTOR 7P			IC1114	8-759-240-71	IC TC4071BP	
*1-564-514-11	PLUG, CONNECTOR 11P			IC1115	8-759-000-51	IC MC14069UBCP	
*1-565-509-11	CONNECTOR, BOARD TO BOARD 18P			<IC LINK>			
<CAPACITOR>				Δ PS1101	1-532-637-91	LINK, IC	
C1101	1-124-589-11	ELECT 47MF	20% 16V	<TRANSISTOR>			
C1102	1-124-589-11	ELECT 47MF	20% 16V	Q1101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1103	1-124-589-11	ELECT 47MF	20% 16V	Q1102	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1104	1-124-589-11	ELECT 47MF	20% 16V	Q1103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C1105	1-124-589-11	ELECT 47MF	20% 16V	Q1104	8-729-900-89	TRANSISTOR DTC144ES	
C1106	1-124-589-11	ELECT 47MF	20% 16V	<RESISTOR>			
C1107	1-124-589-11	ELECT 47MF	20% 16V	R1101	1-249-421-11	CARBON 2.2K 5% 1/4W	
C1108	1-124-589-11	ELECT 47MF	20% 16V	R1102	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R1103	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R1104	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R1105	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R1107	1-247-717-11	CARBON 2.2K 5% 1/4W	
				R1108	1-249-441-11	CARBON 100K 5% 1/4W	
				R1109	1-249-441-11	CARBON 100K 5% 1/4W	
				R1110	1-249-441-11	CARBON 100K 5% 1/4W	
				R1111	1-249-441-11	CARBON 100K 5% 1/4W	

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are critical  
for safety.  
Replace only with part number  
specified.

B4

B5

D1

F

REF.NO.	PART NO.	DESCRIPTION	REMARK
R4308	1-249-417-11	CARBON 1K 5% 1/4W	
R4309	1-249-417-11	CARBON 1K 5% 1/4W	
R4310	1-249-417-11	CARBON 1K 5% 1/4W	
R4311	1-249-421-11	CARBON 2.2K 5% 1/4W	
R4312	1-249-417-11	CARBON 1K 5% 1/4W	
R4313	1-249-417-11	CARBON 1K 5% 1/4W	
R4314	1-249-421-11	CARBON 2.2K 5% 1/4W	
R4315	1-249-419-11	CARBON 1.5K 5% 1/4W	
R4316	1-249-414-11	CARBON 560 5% 1/4W	
R4317	1-249-412-11	CARBON 390 5% 1/4W	
R4318	1-249-412-11	CARBON 390 5% 1/4W	
R4319	1-249-431-11	CARBON 15K 5% 1/4W	
R4320	1-249-421-11	CARBON 2.2K 5% 1/4W	
R4321	1-249-435-11	CARBON 33K 5% 1/4W	
R4322	1-249-429-11	CARBON 10K 5% 1/4W	
R4323	1-249-417-11	CARBON 1K 5% 1/4W	
R4324	1-249-425-11	CARBON 4.7K 5% 1/4W	
R4325	1-249-417-11	CARBON 1K 5% 1/4W	
R4326	1-249-417-11	CARBON 1K 5% 1/4W	
R4327	1-249-420-11	CARBON 1.8K 5% 1/4W	
R4328	1-249-411-11	CARBON 330 5% 1/4W	
R4329	1-249-433-11	CARBON 22K 5% 1/4W	
R4330	1-249-428-11	CARBON 8.2K 5% 1/4W	
R4331	1-249-425-11	CARBON 4.7K 5% 1/4W	
R4334	1-249-417-11	CARBON 1K 5% 1/4W	
R4335	1-247-830-11	CARBON 910 5% 1/4W	
R4336	1-247-880-11	CARBON 110K 5% 1/4W	
R4337	1-249-413-11	CARBON 470 5% 1/4W	
R4338	1-249-401-11	CARBON 47 5% 1/4W	
R4339	1-249-441-11	CARBON 100K 5% 1/4W	
R4340	1-249-393-11	CARBON 10 5% 1/4W	

\*\*\*\*\*

\*1-629-459-11 B5 BOARD  
\*\*\*\*\*

\*1-506-602-11 PLUG, L TYPE (2.0MM PITCH) 5P

## &lt;CAPACITOR&gt;

C1340 1-124-903-11 ELECT 1MF 20% 50V

## &lt;DIODE&gt;

D322 8-719-911-19 DIODE 1SS119  
D323 8-719-911-19 DIODE 1SS119  
D324 8-719-911-19 DIODE 1SS119  
D326 8-719-911-19 DIODE 1SS119

## &lt;TRANSISTOR&gt;

Q358 8-729-900-65 TRANSISTOR DTA144ES  
Q360 8-729-900-89 TRANSISTOR DTC144ES  
Q361 8-729-900-89 TRANSISTOR DTC144ES

## &lt;RESISTOR&gt;

R2319 1-249-429-11 CARBON 10K 5% 1/4W  
R2361 1-249-429-11 CARBON 10K 5% 1/4W  
R2362 1-249-429-11 CARBON 10K 5% 1/4W  
R2363 1-249-429-11 CARBON 10K 5% 1/4W  
R2364 1-249-429-11 CARBON 10K 5% 1/4W

\*\*\*\*\*

REF.NO.	PART NO.	DESCRIPTION	REMARK
*1-629-699-11	D1 BOARD	*****	
*1-564-349-00	PLUG (L TYPE) 7P		
<CAPACITOR>			
C3502	1-126-163-11	ELECT 4.7MF 20% 50V	
C3504	1-106-371-00	MYLAR 0.015MF 10% 200V	
C3521	1-124-927-11	ELECT 4.7MF 20% 50V	
C3523	1-106-371-00	MYLAR 0.015MF 10% 200V	
<DIODE>			
D3502	8-719-911-19	DIODE 1SS119	
D3503	8-719-110-63	DIODE RD24ESB3	
D3504	8-719-110-63	DIODE RD24ESB3	
D3509	8-719-911-19	DIODE 1SS119	
D3510	8-719-110-63	DIODE RD24ESB3	
D3511	8-719-110-63	DIODE RD24ESB3	
<COIL>			
L3501	1-408-421-00	INDUCTOR 100UH	
L3505	1-408-421-00	INDUCTOR 100UH	
<TRANSISTOR>			
Q3503	8-729-140-96	TRANSISTOR 2SD774-34	
Q3506	8-729-140-96	TRANSISTOR 2SD774-34	
<RESISTOR>			
R3506	1-249-411-11	CARBON 330 5% 1/4W	
R3509	1-249-417-11	CARBON 1K 5% 1/4W	
R3510	1-216-425-11	METAL OXIDE 56 5% 1W F	
R3536	1-249-411-11	CARBON 330 5% 1/4W	
R3539	1-249-417-11	CARBON 1K 5% 1/4W	
R3540	1-216-429-00	METAL OXIDE 270 5% 1W F	

\*\*\*\*\*

\*1-629-448-11 F BOARD  
\*\*\*\*\*

\*4-341-751-01 EYELET EY9-EY22, EY27-EY30  
\*4-341-752-01 EYELET EY1-EY8, EY23-EY26

## &lt;CAPACITOR&gt;

C601  $\Delta$  1-136-346-11 FILM 0.22MF 20% 125V  
C602  $\Delta$  1-136-346-11 FILM 0.22MF 20% 125V  
C603  $\Delta$  1-162-578-51 CERAMIC 0.0047MF 20% 400V  
C604 1-162-599-12 CERAMIC 0.0047MF 20% 400V  
C605 1-162-599-12 CERAMIC 0.0047MF 20% 400V  
C606 1-162-599-12 CERAMIC 0.0047MF 20% 400V  
C607 1-125-540-11 ELECT (BLOCK) 1000MF 20% 200V  
C608 1-125-540-11 ELECT (BLOCK) 1000MF 20% 200V  
C611  $\Delta$  1-162-578-51 CERAMIC 0.0047MF 20% 400V  
C612  $\Delta$  1-162-578-51 CERAMIC 0.0047MF 20% 400V  
C616  $\Delta$  1-136-346-11 FILM 0.22MF 20% 125V  
C618 1-136-346-11 FILM 0.22MF 20% 125V

## &lt;DIODE&gt;



B4

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK				
C4316	1-136-165-00	FILM	0.1MF	5%	50V	R333	1-247-897-11	CARBON	560K	5%	1/4W
C4320	1-102-110-00	CERAMIC	220PF	10%	50V	R334	1-247-891-00	CARBON	330K	5%	1/4W
						R335	1-249-405-11	CARBON	100	5%	1/4W
		<DIODE>				R336	1-249-423-11	CARBON	3.3K	5%	1/4W
D306	8-719-911-19	DIODE	1SS119			R339	1-249-419-11	CARBON	1.5K	5%	1/4W
D307	8-719-911-19	DIODE	1SS119			R340	1-249-420-11	CARBON	1.8K	5%	1/4W
D308	8-719-109-71	DIODE	RD3.9ESB1			R341	1-249-417-11	CARBON	1K	5%	1/4W
D4301	8-719-911-19	DIODE	1SS119			R342	1-249-432-11	CARBON	18K	5%	1/4W
D4302	8-719-911-19	DIODE	1SS119			R343	1-249-434-11	CARBON	27K	5%	1/4W
		<DELAY LINE>				R344	1-249-425-11	CARBON	4.7K	5%	1/4W
DL4301	1-415-509-11	DELAY LINE				R345	1-249-420-11	CARBON	1.8K	5%	1/4W
DL4302	1-415-509-11	DELAY LINE				R346	1-249-401-11	CARBON	47	5%	1/4W
		<IC>				R347	1-249-408-11	CARBON	180	5%	1/4W
IC302	8-752-012-52	IC	CX20125			R348	1-249-439-11	CARBON	68K	5%	1/4W
		<COIL>				R349	1-249-431-11	CARBON	15K	5%	1/4W
L4302	1-408-420-00	INDUCTOR	82UH			R350	1-249-417-11	CARBON	1K	5%	1/4W
		<TRANSISTOR>				R351	1-249-414-11	CARBON	560	5%	1/4W
Q314	8-729-119-78	TRANSISTOR	2SC2785-HFE			R352	1-249-418-11	CARBON	1.2K	5%	1/4W
Q315	8-729-119-78	TRANSISTOR	2SC2785-HFE			R353	1-249-419-11	CARBON	1.5K	5%	1/4W
Q316	8-729-119-78	TRANSISTOR	2SC2785-HFE			R354	1-249-420-11	CARBON	1.8K	5%	1/4W
Q317	8-729-119-78	TRANSISTOR	2SC2785-HFE			R355	1-249-425-11	CARBON	4.7K	5%	1/4W
Q318	8-729-119-78	TRANSISTOR	2SC2785-HFE			R356	1-249-417-11	CARBON	1K	5%	1/4W
Q319	8-729-119-76	TRANSISTOR	2SA1175-HFE			R357	1-249-414-11	CARBON	560	5%	1/4W
Q320	8-729-119-76	TRANSISTOR	2SA1175-HFE			R358	1-249-413-11	CARBON	470	5%	1/4W
Q321	8-729-119-76	TRANSISTOR	2SA1175-HFE			R359	1-249-409-11	CARBON	220	5%	1/4W
Q322	8-729-119-76	TRANSISTOR	2SA1175-HFE			R360	1-249-411-11	CARBON	330	5%	1/4W
Q323	8-729-119-76	TRANSISTOR	2SA1175-HFE			R361	1-202-730-00	SOLID	8.2M	10%	1/2W
Q324	8-729-119-76	TRANSISTOR	2SA1175-HFE			R362	1-249-422-11	CARBON	2.7K	5%	1/4W
Q329	8-729-119-78	TRANSISTOR	2SC2785-HFE			R363	1-249-437-11	CARBON	47K	5%	1/4W
Q330	8-729-119-76	TRANSISTOR	2SA1175-HFE			R364	1-249-424-11	CARBON	3.9K	5%	1/4W
Q331	8-729-119-76	TRANSISTOR	2SA1175-HFE			R365	1-247-901-11	CARBON	820K	5%	1/4W
Q332	8-729-119-78	TRANSISTOR	2SC2785-HFE			R366	1-249-414-11	CARBON	560	5%	1/4W
Q334	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1312	1-249-410-11	CARBON	270	5%	1/4W
Q335	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1313	1-247-889-00	CARBON	270K	5%	1/4W
Q336	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1314	1-249-417-11	CARBON	1K	5%	1/4W
Q337	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1315	1-249-434-11	CARBON	27K	5%	1/4W
Q338	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1316	1-249-425-11	CARBON	4.7K	5%	1/4W
Q339	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1317	1-247-895-00	CARBON	470K	5%	1/4W
Q4301	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1318	1-247-883-00	CARBON	150K	5%	1/4W
Q4302	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1322	1-247-717-11	CARBON	2.2K	5%	1/4W
Q4303	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1323	1-249-429-11	CARBON	10K	5%	1/4W
Q4304	8-729-119-76	TRANSISTOR	2SA1175-HFE			R1324	1-249-429-11	CARBON	10K	5%	1/4W
Q4305	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1325	1-249-421-11	CARBON	2.2K	5%	1/4W
Q4306	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1326	1-249-433-11	CARBON	22K	5%	1/4W
Q4307	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1327	1-249-417-11	CARBON	1K	5%	1/4W
Q4308	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1328	1-249-435-11	CARBON	33K	5%	1/4W
Q4309	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1329	1-249-437-11	CARBON	47K	5%	1/4W
Q4310	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1330	1-249-429-11	CARBON	10K	5%	1/4W
Q4311	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1331	1-247-882-11	CARBON	130K	5%	1/4W
Q4312	8-729-119-78	TRANSISTOR	2SC2785-HFE			R1332	1-249-429-11	CARBON	10K	5%	1/4W
		<RESISTOR>				R1333	1-249-429-11	CARBON	10K	5%	1/4W
R330	1-249-401-11	CARBON	47	5%	1/4W	R1334	1-249-431-11	CARBON	15K	5%	1/4W
R332	1-247-895-00	CARBON	470K	5%	1/4W	R1335	1-247-864-11	CARBON	24K	5%	1/4W
						R1336	1-249-426-11	CARBON	5.6K	5%	1/4W
						R1337	1-247-864-11	CARBON	24K	5%	1/4W
						R1338	1-249-437-11	CARBON	47K	5%	1/4W
						R1340	1-249-437-11	CARBON	47K	5%	1/4W
						R4301	1-249-424-11	CARBON	3.9K	5%	1/4W
						R4302	1-249-433-11	CARBON	22K	5%	1/4W
						R4303	1-249-421-11	CARBON	2.2K	5%	1/4W
						R4304	1-249-417-11	CARBON	1K	5%	1/4W
						R4306	1-249-417-11	CARBON	1K	5%	1/4W
						R4307	1-249-418-11	CARBON	1.2K	5%	1/4W


B1

B2

B3

B4

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1356	1-249-433-11	CARBON 22K 5% 1/4W		R1347	1-249-409-11	CARBON 220 5% 1/4W	
*****				R1348	1-249-409-11	CARBON 220 5% 1/4W	
*1-629-445-11	B2 BOARD	*****		R1349	1-249-409-11	CARBON 220 5% 1/4W	
*1-565-491-11	CONNECTOR, BOARD TO BOARD 15P			R1351	1-249-435-11	CARBON 33K 5% 1/4W	
<CAPACITOR>				R1352	1-247-725-11	CARBON 10K 5% 1/4W	
C3301	1-124-464-11	ELECT 0.22MF 20% 50V		R1353	1-249-429-11	CARBON 10K 5% 1/4W	
C3302	1-124-464-11	ELECT 0.22MF 20% 50V		R1354	1-249-435-11	CARBON 33K 5% 1/4W	
*****				R2351	1-249-421-11	CARBON 2.2K 5% 1/4W	
*1-629-446-11	B3 BOARD	*****		R2352	1-249-433-11	CARBON 22K 5% 1/4W	
*1-565-491-11	CONNECTOR, BOARD TO BOARD 15P			<VARIABLE RESISTOR>			
<CAPACITOR>				RV304	1-230-496-11	RES, ADJ, CARBON 10K	
C363	1-102-129-00	CERAMIC 0.01MF 10% 50V		RV305	1-230-496-11	RES, ADJ, CARBON 10K	
C364	1-124-903-11	ELECT 1MF 20% 50V		<CRYSTAL>			
C365	1-136-161-00	FILM 0.047MF 5% 50V		X358	1-567-505-11	OSCILLATOR, CRYSTAL	
C366	1-124-915-11	ELECT 10MF 20% 16V		*****			
C367	1-124-903-11	ELECT 1MF 20% 50V		*1-629-447-11	B4 BOARD	*****	
C368	1-124-903-11	ELECT 1MF 20% 50V		*1-565-485-11	CONNECTOR, BOARD TO BOARD 9P		
C369	1-124-903-11	ELECT 1MF 20% 50V		*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P		
C2305	1-102-074-00	CERAMIC 0.001MF 10% 50V		<CAPACITOR>			
<TRIMMER>				C317	1-124-903-11	ELECT 1MF 20% 50V	
CT358	1-141-337-11	CAP, VAR, TRIMMER		C319	1-124-903-11	ELECT 1MF 20% 50V	
<DIODE>				C320	1-124-477-11	ELECT 47MF 20% 25V	
D308	8-719-911-19	DIODE 1SS119		C321	1-124-925-11	ELECT 2.2MF 20% 50V	
D309	8-719-911-19	DIODE 1SS119		C322	1-102-963-00	CERAMIC 33PF 5% 50V	
D310	8-719-911-19	DIODE 1SS119		C323	1-124-902-00	ELECT 0.47MF 20% 50V	
D311	8-719-911-19	DIODE 1SS119		C324	1-136-165-00	FILM 0.1MF 5% 50V	
D470	8-719-911-19	DIODE 1SS119		C325	1-124-903-11	ELECT 1MF 20% 50V	
D472	8-719-911-19	DIODE 1SS119		C326	1-102-973-00	CERAMIC 100PF 5% 50V	
<TRANSISTOR>				C327	1-136-157-00	FILM 0.022MF 5% 50V	
Q338	8-729-119-76	TRANSISTOR 2SA1175-HFE		C328	1-130-475-00	MYLAR 0.0022MF 5% 50V	
Q339	8-729-119-78	TRANSISTOR 2SC2785-HFE		C329	1-126-233-11	ELECT 22MF 20% 16V	
Q340	8-729-119-78	TRANSISTOR 2SC2785-HFE		C345	1-102-116-00	CERAMIC 680PF 10% 50V	
Q341	8-729-119-78	TRANSISTOR 2SC2785-HFE		C346	1-102-820-00	CERAMIC 330PF 5% 50V	
Q342	8-729-119-78	TRANSISTOR 2SC2785-HFE		C347	1-124-927-11	ELECT 4.7MF 20% 50V	
Q343	8-729-119-78	TRANSISTOR 2SC2785-HFE		C348	1-124-477-11	ELECT 47MF 20% 16V	
Q344	8-729-119-78	TRANSISTOR 2SC2785-HFE		C359	1-102-980-00	CERAMIC 270PF 5% 50V	
Q345	8-729-119-78	TRANSISTOR 2SC2785-HFE		C360	1-124-915-11	ELECT 10MF 20% 16V	
<RESISTOR>				C361	1-124-767-00	ELECT 2.2MF 20% 50V	
R1339	1-249-460-11	CARBON 15K 5% 1/4W		C362	1-124-915-11	ELECT 10MF 20% 16V	
R1340	1-249-409-11	CARBON 220 5% 1/4W		C1323	1-124-915-11	ELECT 10MF 20% 16V	
R1341	1-247-713-11	CARBON 1K 5% 1/4W		C1324	1-124-915-11	ELECT 10MF 20% 16V	
R1342	1-249-417-11	CARBON 1K 5% 1/4W		C4301	1-124-126-00	ELECT 47MF 20% 10V	
R1343	1-249-417-11	CARBON 1K 5% 1/4W		C4302	1-101-006-00	CERAMIC 0.047MF 50V	
R1344	1-249-441-11	CARBON 100K 5% 1/4W		C4303	1-124-034-51	ELECT 33MF 20% 16V	
R1345	1-249-425-11	CARBON 4.7K 5% 1/4W		C4304	1-102-963-00	CERAMIC 33PF 5% 50V	
R1346	1-249-425-11	CARBON 4.7K 5% 1/4W		C4305	1-102-971-00	CERAMIC 82PF 5% 50V	
				C4306	1-124-443-00	ELECT 100MF 20% 10V	
				C4307	1-124-443-00	ELECT 100MF 20% 10V	
				C4308	1-124-902-00	ELECT 0.47MF 20% 50V	
				C4309	1-101-006-00	CERAMIC 0.047MF 50V	
				C4310	1-102-965-00	CERAMIC 39PF 5% 50V	
				C4312	1-126-233-11	ELECT 22MF 20% 16V	
				C4313	1-102-129-00	CERAMIC 0.01MF 10% 50V	
				C4315	1-102-117-00	CERAMIC 820PF 10% 50V	

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

-92-

Les composants identifiés par  
une trame et une marque  $\Delta$   
sont critiques pour la sécurité.  
Ne les remplacer que par une  
pièce portant le numéro spécifié.

The components identified by  
shading and mark  $\Delta$  are criti-  
cal for safety.  
Replace only with part number  
specified.

B/D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R379	1-249-429-11	CARBON	10K 5% 1/4W	R1400	1-249-433-11	CARBON	22K 5% 1/4W
R380	1-249-435-11	CARBON	33K 5% 1/4W	R2301	1-249-413-11	CARBON	470 5% 1/4W
R381	1-249-409-11	CARBON	220 5% 1/4W	R2302	1-249-433-11	CARBON	22K 5% 1/4W
R382	1-249-425-11	CARBON	4.7K 5% 1/4W	R2303	1-249-437-11	CARBON	47K 5% 1/4W
R383	1-249-409-11	CARBON	220 5% 1/4W	R2304	1-249-413-11	CARBON	470 5% 1/4W
R384	1-249-435-11	CARBON	33K 5% 1/4W	R2305	1-249-433-11	CARBON	22K 5% 1/4W
R385	1-249-435-11	CARBON	33K 5% 1/4W	R2306	1-249-433-11	CARBON	22K 5% 1/4W
R386	1-249-422-11	CARBON	2.7K 5% 1/4W	R2307	1-249-437-11	CARBON	47K 5% 1/4W
R387	1-249-417-11	CARBON	1K 5% 1/4W	R2308	1-249-413-11	CARBON	470 5% 1/4W
R388	1-249-421-11	CARBON	2.2K 5% 1/4W	R2309	1-249-417-11	CARBON	1K 5% 1/4W
R389	1-249-421-11	CARBON	2.2K 5% 1/4W	R2310	1-249-429-11	CARBON	10K 5% 1/4W
R390	1-249-426-11	CARBON	5.6K 5% 1/4W	R2311	1-249-429-11	CARBON	10K 5% 1/4W
R391	1-249-427-11	CARBON	6.8K 5% 1/4W	R2312	1-249-429-11	CARBON	10K 5% 1/4W
R392	1-249-409-11	CARBON	220 5% 1/4W	R2313	1-249-429-11	CARBON	10K 5% 1/4W
R393	1-249-413-11	CARBON	470 5% 1/4W	R2314	1-249-429-11	CARBON	10K 5% 1/4W
R396	1-249-409-11	CARBON	220 5% 1/4W	R2315	1-249-433-11	CARBON	22K 5% 1/4W
R397	1-247-903-00	CARBON	1M 5% 1/4W	R2316	1-249-418-11	CARBON	1.2K 5% 1/4W
R398	1-247-889-00	CARBON	270K 5% 1/4W	R2317	1-249-429-11	CARBON	10K 5% 1/4W
R399	1-249-436-11	CARBON	39K 5% 1/4W	R2318	1-249-442-11	CARBON	510 5% 1/4W
R1301	1-249-417-11	CARBON	1K 5% 1/4W	R2320	1-249-425-11	CARBON	4.7K 5% 1/4W
R1302	1-249-423-11	CARBON	3.3K 5% 1/4W	R2321	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1303	1-249-423-11	CARBON	3.3K 5% 1/4W	R2322	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1304	1-249-423-11	CARBON	3.3K 5% 1/4W	R2323	1-249-427-11	CARBON	6.8K 5% 1/4W
R1305	1-249-417-11	CARBON	1K 5% 1/4W	R2324	1-247-739-11	CARBON	100 5% 1/2W F
R1306	1-249-417-11	CARBON	1K 5% 1/4W	R2325	1-249-437-11	CARBON	47K 5% 1/4W
R1307	1-249-417-11	CARBON	1K 5% 1/4W	R2326	1-249-413-11	CARBON	470 5% 1/4W
R1308	1-249-441-11	CARBON	100K 5% 1/4W	R2327	1-249-382-11	CARBON	1.2 5% 1/4W F
R1309	1-249-429-11	CARBON	10K 5% 1/4W	R2332	1-249-417-11	CARBON	1K 5% 1/4W
R1310	1-249-441-11	CARBON	100K 5% 1/4W	R2333	1-249-429-11	CARBON	10K 5% 1/4W
R1311	1-249-441-11	CARBON	100K 5% 1/4W	R2336	1-249-417-11	CARBON	1K 5% 1/4W
R1312	1-249-435-11	CARBON	33K 5% 1/4W	R2337	1-249-405-11	CARBON	100 5% 1/4W
R1316	1-249-429-11	CARBON	10K 5% 1/4W	R2338	1-247-840-00	CARBON	2.4K 5% 1/4W
R1360	1-249-421-11	CARBON	2.2K 5% 1/4W	R2339	1-249-447-11	CARBON	1 5% 1/4W
R1363	1-249-421-11	CARBON	2.2K 5% 1/4W	R2355	1-249-413-11	CARBON	470 5% 1/4W
R1364	1-249-421-11	CARBON	2.2K 5% 1/4W	R2356	1-249-437-11	CARBON	47K 5% 1/4W
R1365	1-249-421-11	CARBON	2.2K 5% 1/4W	R2360	1-249-429-11	CARBON	10K 5% 1/4W
R1366	1-249-415-11	CARBON	680 5% 1/4W	R3501	1-249-410-11	CARBON	270 5% 1/4W F
R1367	1-249-427-11	CARBON	6.8K 5% 1/4W	R3505	1-249-433-11	CARBON	22K 5% 1/4W
R1368	1-249-421-11	CARBON	2.2K 5% 1/4W	R3507	1-215-913-11	METAL OXIDE	220 5% 3W F
R1369	1-249-417-11	CARBON	1K 5% 1/4W	R3508	1-216-477-11	METAL OXIDE	270 5% 3W F
R1370	1-249-417-11	CARBON	1K 5% 1/4W	R3511	1-216-365-00	METAL OXIDE	0.47 5% 2W F
R1371	1-249-417-11	CARBON	1K 5% 1/4W	R3512	1-215-880-00	METAL OXIDE	10 5% 2W F
R1372	1-249-421-11	CARBON	2.2K 5% 1/4W	R3520	1-215-860-11	METAL OXIDE	33 5% 1W F
R1373	1-249-421-11	CARBON	2.2K 5% 1/4W	R3521	1-249-417-11	CARBON	1K 5% 1/4W
R1374	1-249-421-11	CARBON	2.2K 5% 1/4W	R3522	1-215-917-11	METAL OXIDE	1K 5% 3W F
R1375	1-249-421-11	CARBON	2.2K 5% 1/4W	R3523	1-249-405-11	CARBON	100 5% 1/4W
R1376	1-249-415-11	CARBON	680 5% 1/4W	R3537	1-216-480-11	METAL OXIDE	820 5% 3W F
R1377	1-249-414-11	CARBON	560 5% 1/4W	R3538	1-216-480-11	METAL OXIDE	820 5% 3W F
R1378	1-249-425-11	CARBON	4.7K 5% 1/4W	R3541A	1-216-347-91	METAL OXIDE	0.68 5% 1W F
R1379	1-249-433-11	CARBON	22K 5% 1/4W	R3542A	1-215-869-91	METAL OXIDE	1K 5% 1W F
R1380	1-249-421-11	CARBON	2.2K 5% 1/4W	R3543A	1-215-880-91	METAL OXIDE	10 5% 2W F
R1381	1-249-417-11	CARBON	1K 5% 1/4W	R3544A	1-215-907-91	METAL OXIDE	22 5% 3W F
R1382	1-249-433-11	CARBON	22K 5% 1/4W	R3545	1-247-722-11	CARBON	5.6K 5% 1/4W F
R1383	1-249-437-11	CARBON	47K 5% 1/4W	R3546	1-249-434-11	CARBON	27K 5% 1/4W
R1384	1-249-437-11	CARBON	47K 5% 1/4W	R3547	1-249-432-11	CARBON	18K 5% 1/4W
R1391	1-249-421-11	CARBON	2.2K 5% 1/4W	R3548	1-249-437-11	CARBON	47K 5% 1/4W
R1392	1-249-421-11	CARBON	2.2K 5% 1/4W	R3549	1-249-437-11	CARBON	47K 5% 1/4W
R1393	1-249-421-11	CARBON	2.2K 5% 1/4W	R3550	1-249-423-11	CARBON	3.3K 5% 1/4W
R1394	1-249-421-11	CARBON	2.2K 5% 1/4W	R3551	1-249-423-11	CARBON	3.3K 5% 1/4W
R1395	1-249-421-11	CARBON	2.2K 5% 1/4W	R3552	1-247-739-11	CARBON	100 5% 1/2W
R1396	1-249-421-11	CARBON	2.2K 5% 1/4W	R3554	1-249-492-11	CARBON	47K 5% 1/2W
R1397	1-249-421-11	CARBON	2.2K 5% 1/4W	R3555	1-216-457-00	METAL OXIDE	1.2K 5% 2W F
R1398	1-249-433-11	CARBON	22K 5% 1/4W	R3556	1-216-349-00	METAL OXIDE	1 5% 1W F
R1399	1-249-437-11	CARBON	47K 5% 1/4W				

B/D

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC310	8-759-929-62	IC LM7812CT		Q353	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	*4-378-234-01	HEAT SINK, CLIP; IC310		Q354	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC311	8-759-929-62	IC LM7812CT		Q355	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	*4-363-146-00	HEAT SINK, V.OUT; IC311					
IC312	8-759-983-38	IC MB3110APS-G-SNY		Q356	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC313	8-759-101-77	IC UPC1241H		Q357	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	*4-356-301-00	HEAT SINK (D); IC313		Q1301	8-729-900-89	TRANSISTOR DTC144ES	
IC315	8-759-929-62	IC LM7812CT		Q3504	8-729-820-96	TRANSISTOR 2SC3996CA	
IC3502	8-719-927-74	PHOTO COUPLER PC817-C			1-543-242-11	CORE, BEAD; Q3504	
IC3503	8-719-927-74	PHOTO COUPLER PC817-C			4-374-410-01	SPACER, MICA; Q3504	
IC3504	8-719-927-74	PHOTO COUPLER PC817-C			*4-391-705-01	HOLDER (B), TR; Q3504	
IC3505	8-719-927-74	PHOTO COUPLER PC817-C		Q3505	8-729-208-72	TRANSISTOR 2SC3298B-Y	
IC3506	8-719-927-74	PHOTO COUPLER PC817-C		Q3507	8-729-800-87	TRANSISTOR 2SD1398-CA	
IC3507	8-759-982-31	IC RC78M05FA			4-377-115-01	SPACER, MICA; Q3507	
IC3508	8-759-982-52	IC RC79M05FA			*4-378-214-01	HOLDER, TR; Q3507	
<COIL>				Q3510	8-729-306-92	TRANSISTOR 2SD669A-C	
L302	1-408-413-00	INDUCTOR 22UH		Q3511	8-729-304-92	TRANSISTOR 2SB649A-C	
L303	1-410-089-11	INDUCTOR 15MMH		Q3512	8-729-208-72	TRANSISTOR 2SC3298B-Y	
L304	1-408-421-00	INDUCTOR 100UH		Q3513	8-729-119-80	TRANSISTOR 2SC2688-LK	
L305	1-408-429-00	INDUCTOR 470UH					
L1310	1-408-429-00	INDUCTOR 470UH		Q3519	8-729-922-74	TRANSISTOR 1RF644	
L3508	1-459-811-11	COIL, CHOKE 10UH		Q3520	8-729-922-74	TRANSISTOR 1RF644	
L3511	1-408-247-00	INDUCTOR 33MMH		Q3521	8-729-922-74	TRANSISTOR 1RF644	
L3512	1-410-093-11	INDUCTOR 33MMH		Q3522	8-729-922-74	TRANSISTOR 1RF644	
L3513	1-459-474-11	COIL (WITH CORE)		Q3530	8-729-922-74	TRANSISTOR 1RF644	
L3514	1-407-365-00	COIL, CHOKE					
L3518	1-459-474-11	COIL (WITH CORE)		Q3532	8-729-140-96	TRANSISTOR 2SD774-34	
L3519	1-459-474-11	COIL (WITH CORE)		Q3534	8-729-303-47	TRANSISTOR 2SK552	
L3520	1-459-104-00	COIL, DUST CORE		Q3543	8-729-303-47	TRANSISTOR 2SK552	
L3521	1-543-242-11	CORE, BEAD		<RESISTOR>			
L3522	1-543-242-11	CORE, BEAD		R302	1-249-411-11	CARBON 330 5% 1/4W	
<NEON LAMP>				R303	1-249-410-11	CARBON 270 5% 1/4W	
NL3501	1-519-108-XX	LAMP, NEON		R304	1-249-437-11	CARBON 47K 5% 1/4W	
<IC LINK>				R305	1-249-433-11	CARBON 22K 5% 1/4W	
PS301	1-532-685-00	LINK, IC		R306	1-249-405-11	CARBON 100 5% 1/4W	
PS302	1-532-685-00	LINK, IC		R307	1-249-405-11	CARBON 100 5% 1/4W	
PS3502	1-532-984-11	LINK, IC		R308	1-249-417-11	CARBON 1K 5% 1/4W	
PS3503	1-532-984-11	LINK, IC		R309	1-247-826-00	CARBON 620 5% 1/4W	
PS3504	1-532-984-11	LINK, IC		R310	1-247-836-11	CARBON 1.6K 5% 1/4W	
<TRANSISTOR>				R311	1-249-438-11	CARBON 56K 5% 1/4W	
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE		R312	1-249-413-11	CARBON 470 5% 1/4W	
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE		R313	1-247-862-11	CARBON 20K 5% 1/4W	
Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE		R314	1-249-422-11	CARBON 2.7K 5% 1/4W	
Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE		R315	1-247-895-00	CARBON 470K 5% 1/4W	
Q305	8-729-119-76	TRANSISTOR 2SA1175-HFE		R316	1-249-409-11	CARBON 220 5% 1/4W	
Q306	8-729-140-96	TRANSISTOR 2SD774-34		R317	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q314	8-729-119-76	TRANSISTOR 2SA1175-HFE		R318	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q325	8-729-119-76	TRANSISTOR 2SA1175-HFE		R339	1-249-417-11	CARBON 1K 5% 1/4W	
Q326	8-729-900-63	TRANSISTOR DTA124ES		R340	1-249-429-11	CARBON 10K 5% 1/4W	
Q327	8-729-119-76	TRANSISTOR 2SA1175-HFE		R341	1-249-434-11	CARBON 27K 5% 1/4W	
Q328	8-729-119-76	TRANSISTOR 2SA1175-HFE		R342	1-249-436-11	CARBON 39K 5% 1/4W	
Q346	8-729-119-78	TRANSISTOR 2SC2785-HFE		R343	1-249-435-11	CARBON 33K 5% 1/4W	
Q347	8-729-119-78	TRANSISTOR 2SC2785-HFE		R344	1-249-417-11	CARBON 1K 5% 1/4W	
Q348	8-729-119-78	TRANSISTOR 2SC2785-HFE		R367	1-247-723-11	CARBON 6.8K 5% 1/4W	
Q350	8-729-119-78	TRANSISTOR 2SC2785-HFE		R368	1-247-891-00	CARBON 330K 5% 1/4W	
Q351	8-729-119-78	TRANSISTOR 2SC2785-HFE		R369	1-249-429-11	CARBON 10K 5% 1/4W	
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE		R370	1-249-417-11	CARBON 1K 5% 1/4W	
				R371	1-249-409-11	CARBON 220 5% 1/4W	
				R372	1-249-435-11	CARBON 33K 5% 1/4W	
				R373	1-247-883-00	CARBON 150K 5% 1/4W	
				R374	1-249-436-11	CARBON 39K 5% 1/4W	
				R375	1-249-428-11	CARBON 8.2K 5% 1/4W	
				R376	1-249-433-11	CARBON 22K 5% 1/4W	
				R377	1-249-439-11	CARBON 68K 5% 1/4W	
				R378	1-249-439-11	CARBON 68K 5% 1/4W	

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

B/D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1311	1-124-478-11	ELECT	100MF 20% 25V	<FILTER BLOCK>			
C1312	1-124-477-11	ELECT	47MF 20% 16V	<COMPOSITION CIRCUIT BLOCK>			
C1313	1-126-104-11	ELECT	470MF 20% 35V	CFB301	1-464-880-11	FILTER BLOCK, COM (CFB-2)	
C1314	1-106-220-00	MYLAR	0.1MF 10% 100V	<DIODE>			
C1315	1-102-074-00	CERAMIC	0.001MF 10% 50V	CP304	1-232-372-11	COMPOSITION CIRCUIT BLOCK	
C1316	1-126-101-11	ELECT	100MF 20% 16V	D301	8-719-110-16	DIODE RD10ESB1	
C1320	1-101-004-00	CERAMIC	0.01MF 50V	D302	8-719-911-19	DIODE 1SS119	
C1322	1-102-074-00	CERAMIC	0.001MF 10% 50V	D303	8-719-911-19	DIODE 1SS119	
C1339	1-124-120-11	ELECT	220MF 20% 16V	D304	8-719-911-19	DIODE 1SS119	
C1350	1-124-903-11	ELECT	1MF 20% 50V	D305	8-719-911-19	DIODE 1SS119	
C3501	1-106-359-00	MYLAR	0.0047MF 10% 100V	D306	8-719-109-71	DIODE RD3.9ESB1	
C3503	1-123-605-00	ELECT	100MF 20% 100V	D312	8-719-101-39	DIODE RD3.6EL2	
C3505A	1-102-155-12	CERAMIC	330PF 20% 2KV	D313	8-719-911-19	DIODE 1SS119	
C3506A	1-129-710-51	FILM	0.0047MF 10% 630V	D314	8-719-911-19	DIODE 1SS119	
C3507A	1-136-081-11	FILM	0.012MF 3% 2KV	D315	8-719-911-19	DIODE 1SS119	
C3508A	1-136-101-11	FILM	0.022MF 3% 2KV	D316	8-719-911-19	DIODE 1SS119	
C3510	1-126-406-11	ELECT	2.2MF 20% 400V	D317	8-719-911-19	DIODE 1SS119	
C3511	1-123-024-21	ELECT	33MF 160V	D318	8-719-511-40	DIODE S1VB40	
C3513	1-124-034-51	ELECT	33MF 20% 16V	D319	8-719-911-19	DIODE 1SS119	
C3514A	1-102-155-12	CERAMIC	330PF 20% 2KV	D320	8-719-911-19	DIODE 1SS119	
C3515A	1-108-684-11	MYLAR	0.0022MF 10% 200V	D321	8-719-911-19	DIODE 1SS119	
C3517	1-124-034-51	ELECT	33MF 20% 16V	D3501	8-719-976-64	DIODE RGP02-17	
C3522	1-123-605-00	ELECT	100MF 20% 100V	D3505A	8-719-971-09	DIODE ERD08-15	
C3525A	1-162-114-51	CERAMIC	0.0047MF 2KV		4-377-115-01	SPACER, MICA; D3505	
C3526A	1-136-319-11	FILM	0.0033MF 3% 2KV		*4-391-704-01	HOLDER (A), TR; D3505	
C3530A	1-108-416-91	MYLAR	0.0039MF 99% 200V	D3506A	8-719-302-59	DIODE FMU-26S	
C3531	1-106-375-12	MYLAR	0.022MF 10% 200V		*4-363-146-00	HEAT SINK, V.OUT; D3506	
C3532	1-162-135-11	CERAMIC	560PF 10% 2KV	D3514A	8-719-979-23	DIODE RGP02-17PKG23	
C3533	1-136-553-11	FILM	0.0015MF 5% 630V	D3516	8-719-976-64	DIODE RGP02-17	
C3535	1-124-513-11	ELECT	47MF 20% 50V	D3519	8-719-971-20	DIODE ERC38-06	
C3536	1-124-513-11	ELECT	47MF 20% 50V	D3520	8-719-971-20	DIODE ERC38-06	
C3537	1-123-024-21	ELECT	33MF 160V	D3521	8-719-911-55	DIODE U05G	
C3538	1-102-074-00	CERAMIC	0.001MF 10% 50V	D3523	8-719-971-20	DIODE ERC38-06	
C3539	1-124-634-11	ELECT	1MF 20% 250V	D3524	8-719-971-20	DIODE ERC38-06	
C3540	1-102-074-00	CERAMIC	0.001MF 10% 50V	D3526	8-719-971-20	DIODE ERC38-06	
C3541	1-102-074-00	CERAMIC	0.001MF 10% 50V	D3527	8-719-971-20	DIODE ERC38-06	
C3543	1-102-074-00	CERAMIC	0.001MF 10% 50V	D3529	8-719-971-20	DIODE ERC38-06	
C3546	1-124-907-11	ELECT	10MF 20% 50V	D3530	8-719-971-20	DIODE ERC38-06	
C3547	1-124-798-11	ELECT	1MF 20% 160V	D3532	8-719-971-20	DIODE ERC38-06	
C3548	1-136-113-00	FILM	2MF 5% 200V	D3533	8-719-500-26	DIODE D5KD20H	
C3549	1-136-111-00	FILM	1MF 5% 200V	D3540	8-719-971-20	DIODE ERC38-06	
C3550	1-136-111-00	FILM	1MF 5% 200V	D3542	8-719-971-20	DIODE ERC38-06	
C3551	1-136-541-11	FILM	1.5MF 5% 200V	D3543	8-719-110-31	DIODE RD12ESB2	
C3552	1-136-612-11	FILM	2.4MF 5% 200V	D3544	8-719-110-31	DIODE RD12ESB2	
C3553	1-136-540-11	FILM	0.82MF 5% 200V	D3545	8-719-110-31	DIODE RD12ESB2	
C3554	1-136-109-00	FILM	0.68MF 5% 200V	D3546	8-719-110-31	DIODE RD12ESB2	
C3555	1-136-110-00	FILM	0.91MF 5% 200V	D3547	8-719-110-31	DIODE RD12ESB2	
C3556	1-136-107-00	FILM	0.39MF 5% 200V	D3549	8-719-971-20	DIODE ERC38-06	
C3557	1-136-111-00	FILM	1MF 5% 200V	D3550	8-719-911-19	DIODE 1SS119	
C3558	1-102-074-00	CERAMIC	0.001MF 10% 50V	D3551	8-719-971-20	DIODE ERC38-06	
C3563	1-136-108-00	FILM	0.43MF 5% 200V	<IC>			
C3564	1-136-756-11	FILM	0.24MF 5% 200V	IC301	8-752-030-86	IC CXA1001AP	
C3567	1-124-922-11	ELECT	1000MF 20% 50V	IC305	8-759-143-81	IC UPD7564CS-094	
C3568	1-126-600-11	ELECT	100MF 20% 160V	IC306	8-752-330-59	IC CXK1011P	
C3569	1-124-927-11	ELECT	4.7MF 20% 50V	IC307	8-759-102-28	IC UPD6326C	
C3570A	1-136-079-11	FILM	0.01MF 3% 2KV	IC308	8-759-982-21	IC RC78L05A	
C3571A	1-136-070-11	FILM	0.005MF 3% 2KV	IC309	8-759-982-21	IC RC78L05A	
C3572A	1-136-086-11	FILM	0.017MF 3% 2KV				
C3573	1-124-903-11	ELECT	1MF 20% 50V				
C3574	1-124-903-11	ELECT	1MF 20% 50V				
C3575	1-162-117-00	CERAMIC	100PF 10% 500V				
C3576	1-102-978-00	CERAMIC	220PF 5% 50V				

# SECTION 8

## ELECTRICAL PARTS LIST

**B/D**

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

• All resistors are in ohms  
• F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

## COILS

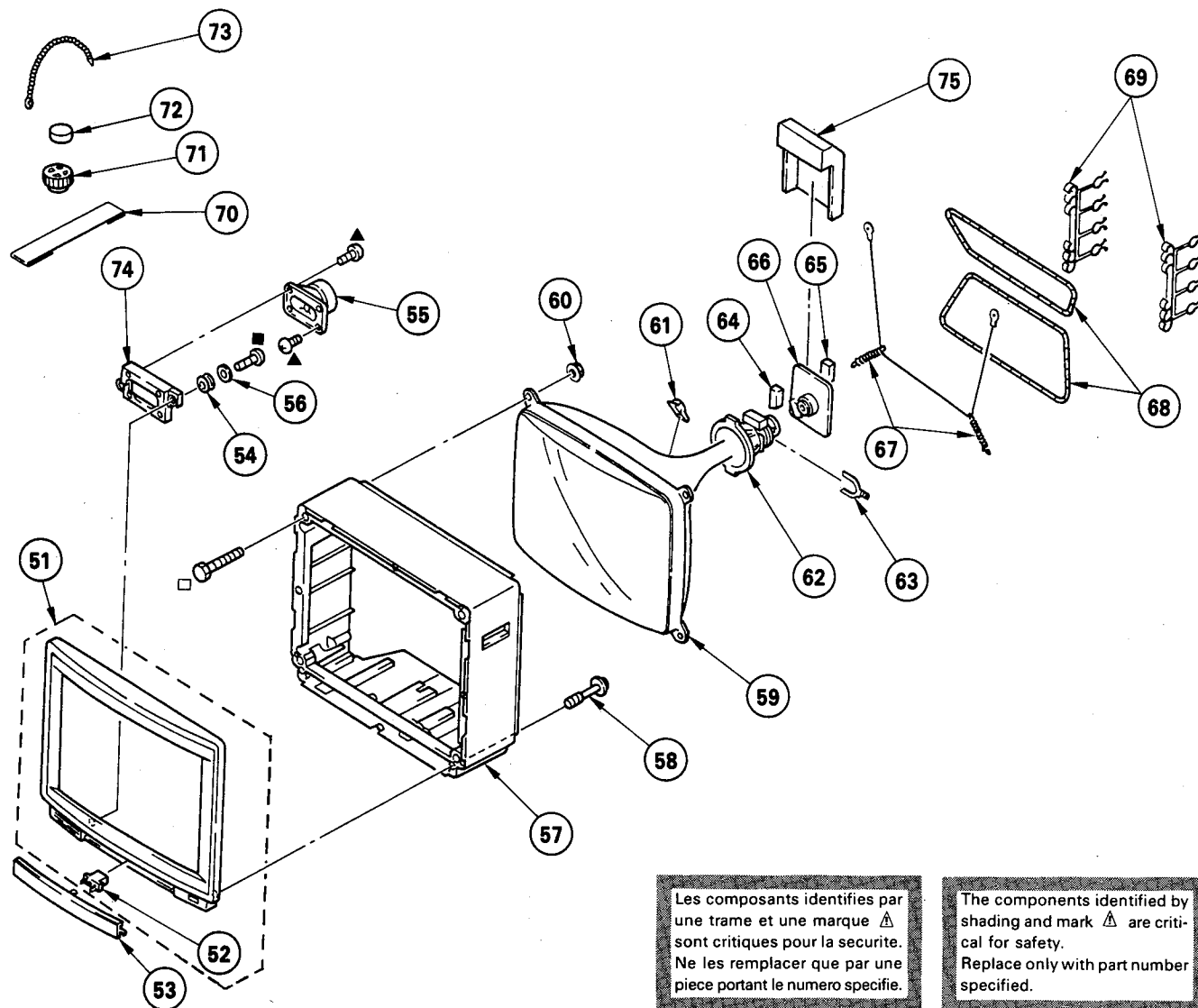
• MMH : mH, UH :  $\mu$ H

• The components identified by  $\boxtimes$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1135-544-A	B/D BOARD, COMPLETE ***** (INCLUDING B1,B2,B3,B4,B5,D1 BOARD)			C339	1-124-915-11	ELECT 10MF 20%	16V
*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			C340	1-101-006-00	CERAMIC 0.047MF	50V
*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P			C341	1-101-006-00	CERAMIC 0.047MF	50V
*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P			C342	1-101-006-00	CERAMIC 0.047MF	50V
*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			C343	1-124-903-11	ELECT 1MF 20%	50V
*1-564-505-11	PLUG, CONNECTOR 2P			C344	1-102-111-00	CERAMIC 270PF 10%	50V
*1-564-506-11	PLUG, CONNECTOR 3P			C349	1-124-903-11	ELECT 1MF 20%	50V
*1-564-507-11	PLUG, CONNECTOR 4P			C350	1-102-116-00	CERAMIC 680PF 10%	50V
*1-564-508-11	PLUG, CONNECTOR 5P			C351	1-102-111-00	CERAMIC 270PF 10%	50V
*1-564-509-11	PLUG, CONNECTOR 6P			C352	1-124-034-51	ELECT 33MF 20%	16V
*1-564-510-11	PLUG, CONNECTOR 7P			C353	1-124-903-11	ELECT 1MF 20%	50V
*1-564-514-11	PLUG, CONNECTOR 11P			C354	1-102-945-00	CERAMIC 8PF 0.5PF	50V
*1-564-516-11	PLUG, CONNECTOR 13P			C355	1-124-903-11	ELECT 1MF 20%	50V
*1-565-500-11	CONNECTOR, BOARD TO BOARD 9P			C356	1-124-464-11	ELECT 0.22MF 20%	50V
*1-565-501-11	CONNECTOR, BOARD TO BOARD 10P			C357	1-126-101-11	ELECT 100MF 20%	16V
*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P			C358	1-101-006-00	CERAMIC 0.047MF	50V
*1-565-506-11	CONNECTOR, BOARD TO BOARD 15P			C362	1-102-129-00	CERAMIC 0.01MF 10%	50V
*1-568-536-11	PLUG (MINIATURE DY) 6P			C370	1-102-973-00	CERAMIC 100PF 5%	50V
*3-738-015-01	COVER, (DIA. 6) CARBON VR			C371	1-102-973-00	CERAMIC 100PF 5%	50V
*4-341-751-01	EYELET EY1-EY18,EY20-EY25,EY27-EY30 EY32-EY34,EY40-EY42,EY45, EY50-EY56,EY60-EY65, EY74-EY84			C372	1-102-129-00	CERAMIC 0.01MF 10%	50V
*4-341-752-01	EYELET EY35-EY39,EY43,EY44,EY48 EY57-EY59,EY66-EY73			C373	1-102-129-00	CERAMIC 0.01MF 10%	50V
4-382-854-01	SCREW (M3X8), P, SW (+)			C374	1-124-034-51	ELECT 33MF 20%	16V
4-382-854-11	SCREW (M3X10), P, SW (+)			C375	1-124-903-11	ELECT 1MF 20%	50V
<CAPACITOR>				C376	1-124-903-11	ELECT 1MF 20%	50V
C301	1-124-915-11	ELECT 10MF 20%	16V	C377	1-124-034-51	ELECT 33MF 20%	16V
C302	1-102-965-00	CERAMIC 39PF 5%	50V	C378	1-102-129-00	CERAMIC 0.01MF 10%	50V
C303	1-124-915-11	ELECT 10MF 20%	16V	C379	1-102-129-00	CERAMIC 0.01MF 10%	50V
C304	1-124-478-11	ELECT 100MF 20%	25V	C380	1-102-129-00	CERAMIC 0.01MF 10%	50V
C305	1-124-478-11	ELECT 100MF 20%	25V	C381	1-101-006-00	CERAMIC 0.047MF	50V
C306	1-124-478-11	ELECT 100MF 20%	25V	C382	1-124-126-00	ELECT 47MF 20%	10V
C307	1-101-004-00	CERAMIC 0.01MF	50V	C383	1-101-006-00	CERAMIC 0.047MF	50V
C308	1-101-004-00	CERAMIC 0.01MF	50V	C389	1-124-443-00	ELECT 100MF 20%	10V
C315	1-124-120-11	ELECT 220MF 20%	25V	C390	1-124-915-11	ELECT 10MF 20%	16V
C316	1-101-006-00	CERAMIC 0.047MF	50V	C391	1-101-006-00	CERAMIC 0.047MF	50V
C330	1-101-006-00	CERAMIC 0.047MF	50V	C392	1-126-105-11	ELECT 1000MF 20%	35V
C331	1-126-101-11	ELECT 100MF 20%	16V	C393	1-130-483-00	MYLAR 0.01MF 5%	50V
C332	1-123-369-00	ELECT 4.7MF 20%	25V	C394	1-162-318-11	CERAMIC 0.001MF 10%	500V
C333	1-124-915-11	ELECT 10MF 20%	16V	C395	1-162-318-11	CERAMIC 0.001MF 10%	500V
C334	1-130-477-00	MYLAR 0.0033MF 5%	50V	C396	1-124-478-11	ELECT 100MF 20%	25V
C335	1-124-925-11	ELECT 2.2MF 20%	50V	C397	1-102-129-00	CERAMIC 0.01MF 10%	50V
C336	1-136-157-00	FILM 0.022MF 5%	50V	C398	1-124-915-11	ELECT 10MF 20%	25V
C337	1-136-157-00	FILM 0.022MF 5%	50V	C399	1-102-129-00	CERAMIC 0.01MF 10%	50V
C338	1-136-169-00	FILM 0.22MF 5%	50V	C1301	1-124-119-00	ELECT 330MF 20%	16V
				C1302	1-124-119-00	ELECT 330MF 20%	16V
				C1303	1-102-129-00	CERAMIC 0.01MF 10%	50V
				C1305	1-102-129-00	CERAMIC 0.01MF 10%	50V
				C1306	1-124-915-11	ELECT 10MF 20%	16V
				C1307	1-124-119-00	ELECT 330MF 20%	16V
				C1308	1-136-173-00	FILM 0.47MF 5%	50V
				C1309	1-124-917-11	ELECT 33MF 20%	50V
				C1310	1-136-173-00	FILM 0.47MF 5%	50V

## 7-2. PICTURE TUBE

- ▲: BVTP3 x 8      7-685-646-79  
 □: BOLT HEX M5    7-683-348-07  
 ■: BVTP3 x 12    7-685-648-79



Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4393-905-5	BEZEL ASSY		66	*A-1330-982-A	C BOARD, COMPLETE	
52	4-352-034-00	CATCHER, PUSH		67	*4-376-036-01	SPRING, TENSION	
53	4-393-912-11	DOOR, CONTROL		68	▲ 1-426-301-11	COIL, DEMAGNETIZATION	
54	*2-377-709-00	BUSHING, RUBBER		69	*4-341-778-01	BAND, DEGAUSSING COIL	
55	1-503-258-21	SPEAKER		70	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
56	4-812-554-11	WASHER		71	1-452-094-00	MAGNET ROTABLE DISK; 15MM φ	
57	X-4393-904-3	CABINET ASSY		72	1-452-032-00	MAGNET, DISC	
58	4-319-520-11	SCREW, SPECIAL (+PW4X30)		73	4-308-870-00	CLIP, LEAD WIRE	
59	▲ 8-736-522-01	PICTURE TUBE SD-153U		74	*4-393-911-01	BOARD, BAFFLE	
60	4-306-034-00	FLANGE NUT, (B) 5MM		75	X-4393-910-2	CASE SHIELD	
61	3-703-003-00	SPACER, DY					
62	▲ 1-451-340-13	DEFLECTION YOKE (Y21PFC2)					
63	1-452-277-00	MAGNET, BMC					
64	4-379-167-01	COVER (MAIN) CV					
65	4-379-160-01	COVER (REAR LTD) CV					